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AMERICAN POULTRY WORLD

APRIL, 1916



Ideal Blue Andalusian Male as Adopted by The Blue Andalusian Club of America. (See Page 457.)



Beautiful New Catalogue FREE

*Do You Want Guaranteed Eggs
For Hatching, from some of the
Greatest of all living Barred Plymouth
Rocks? Then write me today.*

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Eggs from six unrivaled pens for the 1916 breeding season. Exhibition stock for sale at all times. STAMP BRINGS MATING LIST.
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THE COLISEUM, CHICAGO, DECEMBER, 1915.



S. C. WHITE LEGHORNS

Cocks 1-3,
Old Pens 2-3
Cockerels 1-4,
Young Pens 1
Coliseum Sweepstake Cup
Total Points - - 66
Nearest Competitor - 43

SILVER CAMPINES

3 Hens in Singles
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3 Old Pens
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Coliseum Sweepstake Cup
Campine Club Challenge Cup



Blue Ribbon Winner
Coliseum 1915

EGGS EGGS EXHIBITION STOCK furnished for any Show in the Country. EGGS EGGS EGGS EGGS EGGS EGGS EGGS EGGS
HATCHING EGGS: 25 Pens Each Breed Now Mated. Write for Free Mating List.

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SOUTH BEND, INDIANA

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GREAT CHICAGO COLISEUM SHOW

In 1914 on four entries we won first and third hen, fifth hen, fifth pullet, third cockerel and at the same show this year December, 1915, we added to our winnings first and fourth cock, first, second and third hen, first old pen.

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WHITE ORPINGTONS

I am offering real bargains in strictly high class show birds to reduce my flock. Must have more room for Blue Orpingtons to meet the increasing demand. My records both showing and selling for the past five years stand alone. I doubt if there is a breeder of White Orpingtons in the United States who can show more good type birds. Four pens containing many noted prize winners are all that we will have mated in Whites this year. Eggs \$10.00 and \$5.00 per setting.

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WRITE TODAY FOR FREE LITERATURE and price on my Orpingtons.

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1364 Herschell Ave.,

CINCINNATI, O.

AMERICAN POULTRY WORLD

Published the First of Each Month by the
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AMERICAN POULTRY PUBLISHING COMPANY

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The standard-bred poultry business is again quite good, all things considered. A model that conforms to the wishes of breeders of Blue Andalusians. Can be made to suit even the most critical. Thos. F. McGrew makes a valuable suggestion for the forthcoming separate breed standards. Carl Dare still at it under full sail, 'Official Judge' and all. Frank Foy wins out in suit brought against him by Carl Dare. Down to date wisdom from the sage of Natick Sharpe Butterfield, poultry judge and expert, finishes life's work, January 31. Addressed to the earnest and loyal friends of poultry culture. Notes about the A. P. A. Election to take place this month. Compliments paid to guaranteed display advertisers of A. P. W. Sent Sample Photograph; wants others like it in Separate breed standards

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45,000 COPIES FOR APRIL, 1916

E. D. Corson, Secretary-Treasurer of the Corson Manufacturing Co., printers and binders, being first duly sworn, states that that company has a contract for and is printing and binding forty-five thousand (45,000) copies of the April, 1916, number of the AMERICAN POULTRY WORLD.

E. D. CORSON.
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FIRST PULLET, BOSTON



1st PEN COCK, NEW YORK



FIRST COCK, PALACE



FIRST HEN, BOSTON



FIRST COCK, NEW YORK

BLOOD WILL TELL

DON'T BELIEVE IT? Ask any successful exhibitor and he will advise that it is absolutely necessary to have correct blood lines in order to produce winners. Have you insured your success for next season with a well-bred male or female?

LESTER TOMPKINS' SINGLE AND ROSE COMB REDS WILL HELP YOU

Improve the color and shape of your Reds as they have done for breeders throughout the world. They are the oldest line-bred Rhode Island Red strain in existence. They have the correct Rhode Island Red type. They have the rich, brilliant, lustrous color, that has made them the greatest prize winning strain in existence. At the

NEW YORK PALACE SHOW—DECEMBER, 1915

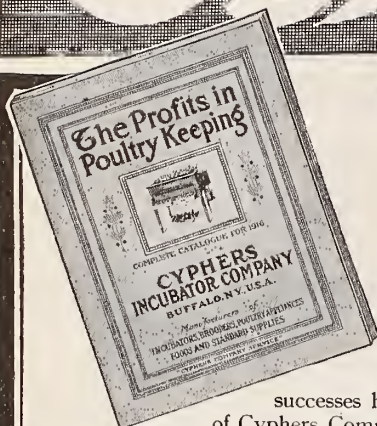
they won S. C. Reds 1 cock, 5 hens, 1 pen and on R. C. Reds 1 cockerel and 2 pullet. My first prize winning pen was pronounced by judges to be the finest exhibition display pen of the variety ever shown.

EGGS from the finest matings ever brought together The matings that will produce hundreds of next winter's show winners, \$5.00 and up. I shall have some choice males for sale. It will pay you to write your wants and send for my catalogue and mating list.

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FOR the past 20 years Cyphers-built Incubators have been used almost exclusively by all the **big, successful poultry plants** and the **leading fanciers** in the United States and Canada. Can you, Reader, do better than follow the example of the men and women who have succeeded—who have **made money with their poultry**? Many of these poultrymen **first tried** other makes, but soon discarded them, and now frankly acknowledge they could not have succeeded without the "Cyphers." **"The Profits in Poultry Keeping,"** our 172 page (size, 7½ x 10 inches) Catalogue and Poultryman's Guide, tells how these big

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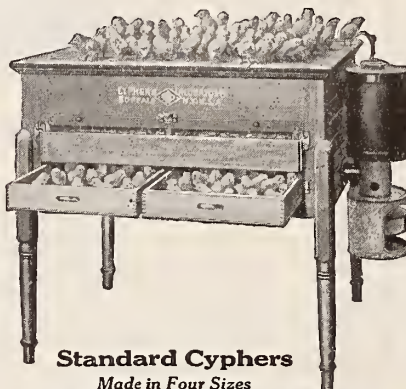
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Now is the time to **increase** your hatching capacity. April and May hatched chicks are easy to raise. The weather then is favorable and the chicks can be given the advantage of outdoor brooding. **Do not delay**, therefore, ordering needed equipment.



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Made in Four Sizes

70 Eggs, \$15.00.	144 Eggs, \$23.00
244 Eggs, 34.00.	390 Eggs, 40.00

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The machine that for **twenty years** has been recognized as the **"standard hatcher of the world."** Tens of thousands of them are in successful use in every civilized country on the globe. They are the last word to date in incubator building. Are built to hatch successfully in **all climates, under widely different conditions**, in the hands of all sorts of people, and with reasonable care will last a lifetime. (See the illustration herewith.) **Satisfaction guaranteed to every purchaser.**

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Superior Hot-Water

Made in Two Sizes

65 Eggs, \$12.00. 130 Eggs, \$16.00

Immediate Shipment Guaranteed

At each of our **SEVEN** places of business (see opposite page) we have complete stocks of Incubators, Brooders and Hovers **READY** for immediate shipment on receipt of your order. Place your order now, therefore, and get the benefit of the full hatching season.

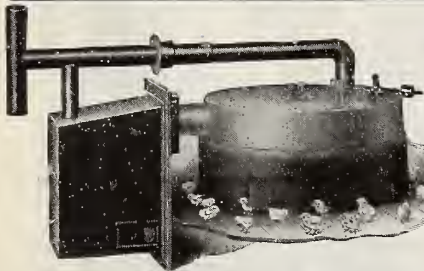


Columbia Hot-Air

Made in Two Sizes

140 Eggs, \$16.00. 250 Eggs, \$22.00

Insures Your Success in Hatching and Brooding



Adaptable Hover. Price, \$9.00!

The "Cyphers Way" Saves the Chicks

THE brooding season is right before you now. Your chicks will need your *best attention* and the best "foster-mother" that can be provided. In fact, upon your choice of a proper Brooder, and the care you take of your chicks, depends very largely the *net profit* you will make this season.

The "Cyphers Way" of brooding chicks will *prevent losses*, and help you bring your poultry into market at the *best prices*. You cannot afford now to "experiment." Cyphers methods have been tested by 20 years' experience—our own and that of thousands of customers.

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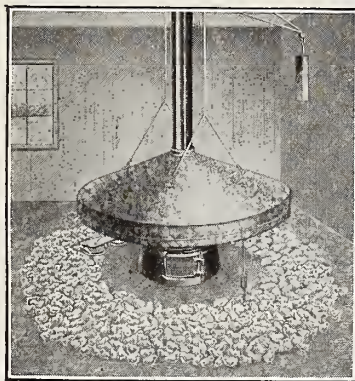
For indoor brooding. Base section (two compartments) can be bought and used separately. Later, one or more upper sections can be added. Heated by one Blue-flame Safety Oil Stove. No special houses or coops are needed, and chicks can be raised in any living room; chicks are *always in plain sight*, up off the floor, away from cold, dangerous drafts; chicks cannot chill, cannot overheat, cannot wander away and get lost or be destroyed by rats, cats, etc.; saves time, labor and fuel. *Fully guaranteed.*



Four-Section Paradise Brooder. Capacity, 400 Chicks.

Adaptable Hover

For outdoor and indoor brooding. A popular and efficient Brooder at a *low price*. Tens of thousands of these standard Hovers are in successful use in all parts of the world. Is *self-regulating, self-ventilating, fume and gas-proof*, all-metal, and fire-proof. Lamp positively cannot blow out. Easily attached to *home-made brooder case*, large goods box or small colony house. Used as heater in all Standard Cyphers Brooders. (See illustrations herewith.) *Fully guaranteed to you.*



Colony Hover. Price, \$15.00 Up.

Colony Hover

Coal-burning. Broods chicks in flocks of 300 to 1,500, and at *lowest expense*. In health of chicks, in low cost of labor and fuel, in simplicity and ease of operation, it *has no equal* for brooding chicks in large numbers. Its ample fuel capacity and automatic regulator, will keep the chicks warm throughout the coldest night, maintaining a regular temperature of 90 to 95 degrees under hover and keeping room at desirable temperature. Made in *five sizes*. Write for Special Circular. *Fully guaranteed.*

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Style B Three-Apartment Brooder.

Standard Brooders

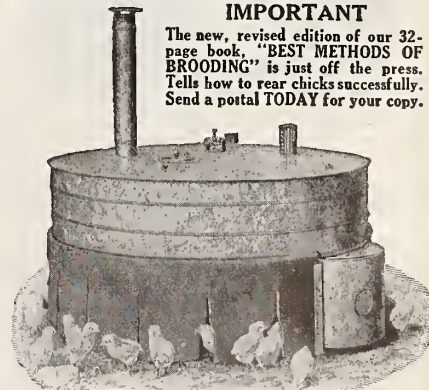
Have no equal as efficient brooding heater combined with latest-improved brooder case. Are equipped with Cyphers Adaptable Hover. Most popular Brooders on market. Keep chicks *safe and comfortable in any weather*. Convenient to use, easy to clean, readily movable. Shipped knock-down at lowest freight rates. **Style A**, for outdoor use; has two apartments. Price, \$14.50. **Style B**, for outdoor use; has three apartments. Price, \$18.50. (See illustration.) **Style C**, same as Style B, but has double-insulated walls in hover apartment; for cold climates. Price, \$20.00. **Style D**, for indoor use; has two apartments. Price, \$13.50. *Guaranteed.*

Portable Hover

Provides a *low-cost*, convenient and practical way to brood little chicks indoors. Set it down anywhere indoors and you will have a safe and comfortable home for the little chicks. "Movable" at a moment's notice without even turning down the lamp flame. It is an all-metal, *self-regulating, self-ventilating, complete brooding device*, automatic and economical. Does not need a brooder case or box enclosure. Chicks are on the level of room floor all the time. (See illustration.) *Fully guaranteed.*

IMPORTANT

The new, revised edition of our 32-page book, "BEST METHODS OF BROODING," is just off the press. Tells how to rear chicks successfully. Send a postal TODAY for your copy.



Portable Hover. Price \$9.00.



202 EGGS



246 EGGS



217 EGGS



223 EGGS



229 EGGS



213 EGGS



231 EGGS



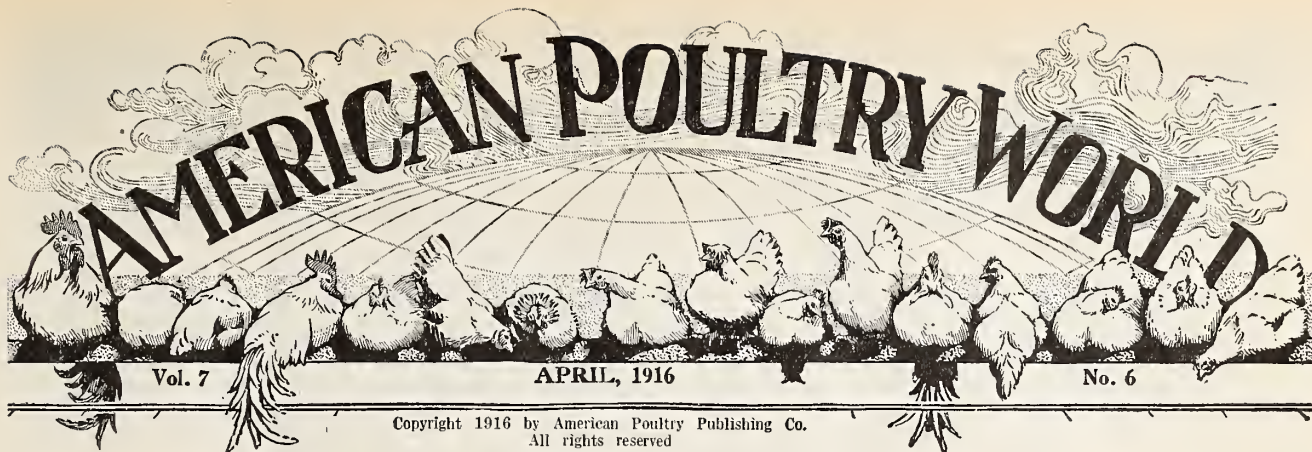
235 EGGS



206 EGGS

RECORD LAYING FEMALES REGAL-DORCAS LINE
BRED AND OWNED BY JOHN S. MARTIN PORT DOVER, ONT

That the present Standard for White Wyandottes is a fitting one—one that enables breeders to produce exhibition fowls that will also lay eggs in large numbers is demonstrated by the fact that John S. Martin, originator of the Regal Strain White Wyandottes at Port Dover, Ont., has developed, out of a family of exhibition White Wyandottes, a strain that is creating some of the highest egg records of today. Years ago Mr. Martin began to trapnest his fowls beginning with one female, he called "Dorcas", that was a prolific egg layer. With this specimen as a foundation mated to one of his choice exhibition males, he began the breeding of a line of Wyandottes that possessed exhibition qualities with great egg laying ability. During our visit at Mr. Martin's Regal White Wyandotte farm we were impressed with the excellent show room quality possessed by the specimens in the pens that Mr. Martin was trap nesting. These pens as previously stated sprung from the mating above referred to until now he is in possession of a large flock which he calls his "Dorcas" Line. Above is shown nine of the highest egg record females of the past season. It will be noted that these females show plenty of modern Wyandotte characteristics and show room type as compared with the present day Standard. We feel confident that several of them could be shown in warm company and hold their own among the ribbon winners. Sane and sensible Standards should be the slogan of breeders of exhibition fowls if we are to build up a poultry industry that has a lasting foundation under it. Fine feathers, fine form and useful qualities should be the requirements as set down by the American Poultry Association in their Standards for all breeds, and we are pleased to find that this is especially so in White Wyandottes, also practically all of the more popular breeds and varieties.—A. V. Schilling.



UNIQUE LABOR-SAVING POULTRY PLANT.

Illustrated Description of The Fancier-Breeder's Poultry Establishment of J. V. McConnell, Garden Grove, California, One of the World's Most Successful Specialists In The Production of Standard-bred Fowl.

BY GRANT M. CURTIS, EDITOR—PART I.

MR. McConnell is one of the comparatively few men who dare to be original—and who make it pay! Personally, in our business career, we have fought shy of originators, preferring to employ the other kind and follow the beaten path. Of course this isn't as spectacular, nor does it pay air-ship profits, but for ninety-nine out of a hundred of us, or nine hundred and ninety-nine out of every thousand, it is by far the safer plan.

However, if a man has both experience and good judgment, he can afford to be original—and still will win success, unusual success quite often. J. V. McConnell is one of the original kind who has had experience and whose judgment also is good. His success has not been spectacular in the sense of startling the world; nevertheless, he is a real student of the problems at hand in his field of effort and having found the path he wishes to follow, he developed the courage to keep straight ahead, regardless.

This characteristic in Mr. McConnell's mental make-up is shown in the unique yet practical features of his poultry plant as illustrated and described herewith, and as will be set forth with greater emphasis in Part II of this series of articles, which is to explain his methods of line-breeding, including the quotation of a letter from him on this subject of vital importance to earnest poultry students, wherein he frankly states that he mates "full brother and sister," if it so pleases him.—Editor.

IT has been quite a while since the editor of A. P. W. enjoyed the benefit of visiting a large number of the leading poultry plants of the country. Ten to fifteen years ago we did a lot of this and at that time we felt that we were well posted on down-to-date poultry house construction, the right lay-out of poultry plants, the use of money-saving appliances, etc.

The foregoing remarks are offered as an excuse, provided it develops in this article that we are over-enthusiastic about the unique layout and numerous practical advantages found in the recently built poultry establishment of J. V. McConnell, at Garden Grove, Calif., a suburb of Los Angeles. In this article we describe a number of these features. Next month we shall present an article devoted to the breeding methods employed by Mr. McConnell, as one of the world's half dozen foremost producers of exhibition and utility Single Comb Black Minorcas.

We are told that "nothing succeeds like success"; therefore because of the influence it will have on the minds of A. P. W. readers in judging the practical value of the new poultry plant of Mr. McConnell, we are doing him the justice to quote here his winnings at the recent Panama-Pacific International Poultry Show on his specialty, as follows:—Cocks, 1st, 2nd, 4th, 6th and 7th; hens, 3rd, 4th and 8th; cockerels, 1st, 2nd, 4th and 5th; pullets, 1st, 2nd and 3rd; pen, 2nd. Competition was keen and a number of other winners in this class were of the McConnell strain.

The most unique feature of the McConnell poultry plant is shown in Fig. 1 herewith. The photograph from which Fig. 1 was made was taken two or three years ago. Another and later view is shown in Fig. 2. This view consists of two photographs that were taken Monday December 6th, 1915, by Franklane L. Sewell, well-known staff artist of the Reliable Poultry Journal, who was with us on this trip to Southern California. All other photographs reproduced herewith are by Mr. Sewell and were taken the same day. Their excellence is a credit to the artist and indicates the remarkably clear atmosphere in which they were obtained.

Experience or necessity were the inventors or designers of the sixteen-house arrangement shown in Figs. 1 and 2 herewith. Mr. McConnell has been in the poultry business fifteen to eighteen years. He started back in Ohio. Later—some ten years ago, as we recall it—he moved to Southern California. His first poultry plant out there was put up in the old-fashioned way—that is, everything was stationery, including houses, fences, etc.

At length in the old plant it developed that the ground or

soil in the yards was becoming foul. This was true despite the sandy character of the light loam and the fact that drainage was fairly good. However, they have three or four months of rainy season in that section in combination with six or seven months of dry period—and it was during this long dry period that Mr. McConnell found it difficult to keep the soil in his poultry yards reasonably free from contamination.

Kindly study the long footnote under Fig. 1 herewith. That footnote tells pretty much the whole story in brief form. Half a dozen other points may well be added. The fronts of these small breeding houses are built in such manner that by opening wide the two doors, the entire interior is exposed for cleaning or for a sun bath or complete airing. The words "for cleaning" should not be overlooked. The attendant in his rounds places a long wooden trough, built in basket fashion, in front of the house, then rakes the mixture of droppings and sand into this trough, dumps the trough into a wheel-barrow and passes on to the next house.

As we recall it, the inner or narrow end of each of these yards is 12 feet wide and the outer end is 24 feet wide, the division fences being 40 feet in length. Each house is 6x6 feet and is 6½ feet high in front and 5 feet high at the rear. The houses are made of six-inch wide ship-lap, with weather-proofed paper roofing held in position with wide slats.

Connected with each of the sixteen small-sized breeding houses is a three-compartment trap-nest box. These boxes are "out-doors," so to speak, and access to them for gathering the eggs is had from the outside. The egg gatherer passes through the line of gates in the division fences to the rear of the houses, gathers the eggs and completes the circuit, coming out just opposite the point where he started in, thence returning to the feed and egg house.

In each trap-nest there is a small separate compartment used as a temporary receptacle for the early laid eggs, until late in the afternoon when it is believed that all the fowls have laid that are going to do so that day. These are not self-releasing trap-nests. A practical device of that kind (self-releasing and self releasing) has not yet been invented. The caretaker finds a hen and her egg in one of the nest box compartments, the hen being locked in. He marks her leg-band number on the egg she has deposited, then releases the hen and places the egg in the small compartment. Late that afternoon he makes his last round and gathers up all these eggs, releasing the last lot of hens that have laid since he made the preceding trip.



The weather in South California is such, the year around, that there is little or no danger of eggs becoming chilled, even though they were left in these nest boxes all night during the so-called winter season. December 6th, 1915, was supposed to be "winter time" at Garden Grove. The Sierra Madre Mountains, only twelve to fifteen miles away (they seem much nearer) were snow-capped, but the flowers were still in bloom around the McConnell homestead, ripe persimmons—the big, golden kind—hung on the trees, the luxuriant kale (see Fig. 2) was waist-high and pea green and of course there was no indication of snow or ice on the McConnell poultry plant, located in the valley, on a sandy loam that had been dessert, or practically so, until modern irrigation methods reclaimed the land and converted it into a Twentieth Century Eden, for the production of oranges, lemons, figs, olives, English walnuts, apricots, rare varieties of grapes, numberless flowers and high-class standard-bred fowl.

That day, December 6th, 1915, we had a good opportunity to judge personally the odd character of this wonderful climate. Mr. Sewell spent a couple of hours photographing half a dozen of Mr. McConnell's choice cockerels. In order to get good effects he placed these cockerels in the shadow of the feed and conditioning house. There in the shade it was distinctly chilly, so much so that Mr. Sewell found it comfortable to wear his heavy overcoat.

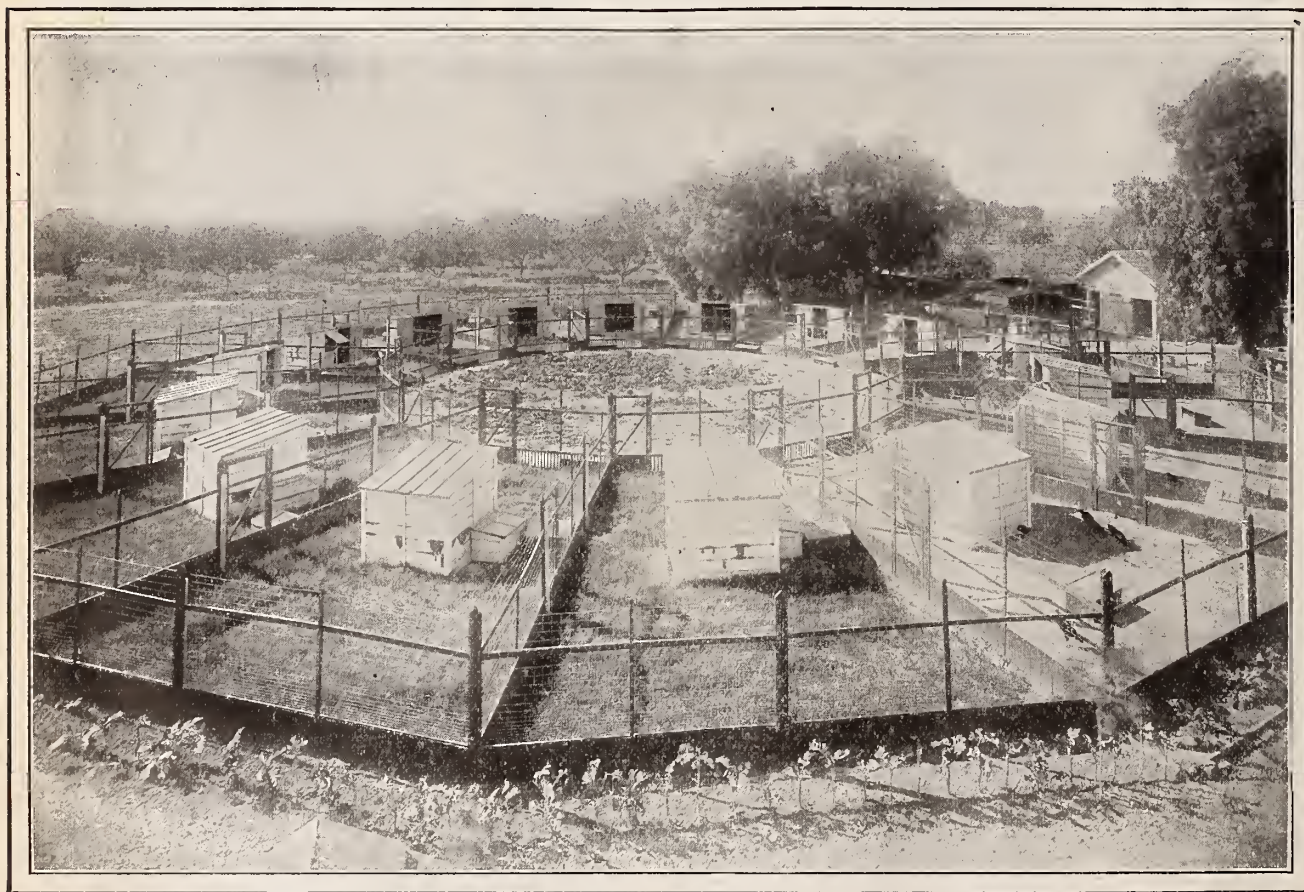
On the other hand, ye editor sat patiently (?) on a cement coping nearby, in the bright sunlight, and we positively were uncomfortable, so much so that we removed our overcoat. Mrs. McConnell came out and visited with us. She had no

wrap on, not even a sweater, nor did she wear a hat of any kind. That forenoon we were somewhat too warm in the sun, whereas in the shadow of a building or tree an overcoat was needed, unless you were a native and used to it, or kept moving.

Every now and then when left alone for a few minutes we would step into the orange grove nearby, pluck a ripe Valencia orange, cut it in halves and drink the delicious contents! At another time we strolled over to a tree of ripe persimmons. The leaves had dropped off, but the small tree, the branches being within easy reach of the ground, fairly groaned with ripe persimmons as large as small-sized apples back east. Finding two or three of the dead ripe kind, we did the natural thing. One result was that by 2.30 P. M., when our party reached Los Angeles by automobile and was entertained at the Hotel Alexandria by Robt. H. Rowan, we could eat only about fifty cents worth out of a three-dollar meal.

Out there they talk of "tree-ripened" fruit. And we can assure you, dear reader, that it means something! Oranges, persimmons, etc., that ripen on the tree are far superior in taste and deliciousness to the kind us easterners and north-erners have to endure in the average market.

Raised as a boy in New York and Illinois it was a distinct surprise to us (in Pasadena, for example) to find orange trees used for shade and to see many ripe oranges scattered under these trees on vacant lots with little or no attention paid to them by the local "kids." Out there oranges are as common as apples back east and far more plentiful. We have never been in a section where apple orchards were as numerous or where apples were more commonplace (Continued on Page 512)



UNIQUE PART OF POULTRY PLANT OF J. V. McCONNELL, GARDEN GROVE, CALIF.

Fig. 1—Consists of "knock down" houses and removable fences. The sixteen houses, 5 by 6, shown in this picture are held together with hooks and eyes and can be taken down on a moment's notice and moved to any other location. The fences are built in panels and also are held together with strong hooks and eyes. In other words, this entire plant, houses and nest-boxes can be folded up in a half a day's time by two men and set to one side so that a horse plow can be used in turning over the soil and perhaps planting it to some quick-growing, "purifying" crop like barley, rye or oats. Kale is shown growing outside the outer fences. Kale or other green food is grown also in the central space. The attendant makes three trips in caring for the fowls kept on this plant. Entering through a lane that comes from the feed house at the right. He covers the small inner circle, placing wet or dry mash in the troughs shown at the inner, shorter end of each of the sixteen yards. To gather the eggs he starts at the same lane and makes the circuit of the gates located in the division fences, just at the rear of the line of houses. For feeding kale (that grown outside the outer fences) he makes the long circuit, picking off the lower leaves of each plant and throwing them over the fences into the yards. We recommend this arrangement to fancier-breeders, especially on soil that is liable to get "sick" or become foul. The plan is attractive, economical and safe.



Brooding With Hens

Herewith are Described the Various Methods of Natural Brooding as Followed
By Several Well Known and Successful Breeders Who Give Their Experience
For the Benefit of A. P. W. Readers

IN this day and age when artificial incubation and brooding play such an important part in the development of the poultry industry we are very liable to overlook the old hen who in the early days, before the advent of the incubator and brooder had of necessity to be depended upon to both hatch and brood our chicks.

While the brooder has robbed the good of biddy of much of her maternal labors, still there are occasions where she still must be depended upon. In many of these cases it falls the lot of the uninitiated, or in other words the beginner, to trust his or her first brood to the mercies of the old hen to raise. There are others that owing to limited space that do not feel that it would be either good policy or economy to attempt the use of the incubator or brooder. It is to help all such poultry raisers that several well known and successful poultrymen who raise all or a portion of their chicks with hens have been asked and have generously responded to the following question:

How do you manage the hen and her chicks and what kind of brood coops do you use?

The promptness with which, and the detailed manner in which this question has been answered shows how willing these successful poultry raisers are to assist others in their poultry work and to aid them in making it a success. The advantage to the beginner in obtaining this information that is the result of many years experience is beyond calculation and if it is put to good use there is no reason why success should not crown the effort.

Makes good coops from goods boxes and feeds chicks corn bread says C. H. Boschen, Ashland, Va., breeder of Barred Plymouth Rocks.

THIRTY-SIX hours after the hen has completed her hatch I give the chicks corn bread made up in pones without any salt. (I have tried most everything and have settled on the corn pones and never lose any chicks). The chicks get this for the first three weeks and it never sours and never gives them bowel trouble. After three weeks I give the chicks just a little crumbly bran mash for the morning feed and a small grain for the night feed. I have never yet been convinced that a baby chick can eat hard grains just as soon as they are out of the shells. Can a baby eat bread when it is born?

My brood coops are made by myself and in the following manner. I get a dry goods

box say from 24 to 30 inches square and cut it down so that it will have a good fall to allow the rain to run off leaving top and bottom open, and cut two small doors one at the top for ventilation and one at the bottom for entrance.

Next I make a portable top for the coop extending it from four to six inches over the edges of coop so that as little rain as possible will beat against the coop and cover this with composition paper of some kind. Next I lay two pieces of two by four inch scantling on the ground and nail one inch boards to it for a platform making this about one inch larger than the coop.

By removing the top and coop the platform can be easily swept clean and the coop can readily be disinfected and there is practically no danger of vermin getting on your chicks. Under the shade of one of my nice Elms I sit Mrs. Biddy for a day until she learns that this is to be her home for a while.

I have often wondered if any one other than myself and a few of my friends ever gave their birds what we term fish salt. This is salt from a herring barrel. I have used it for years for bowel trouble and a bird has to be nearly dead when a little piece as large as a pea fails to bring it around—C. H. Boschen.

G. S. Buxton, Bellows Falls, Vt., tells how he hatches and broods his Partridge Plymouth Rocks and describes the coop used.

MY method of managing the hen and chicks is very simple and has always given most satisfactory results.

To begin with I have several coops about 20 inches wide, 30 inches long, 18 inches high in front and 14 inches high in back. These are made from boxes that can be obtained from local stores. (This is matched lumber). The cover extends over all four sides and I have used a cheap grade of roofing paper to cover it with. The cover is hinged so that it will lift up from the back to clean coop or feed. For the fronts I have two hinged doors, one with slats and the other covered with 1/4 inch mesh screen, this outside door is closed nights to keep out rats and other animals. In the back of the coop I have holes for ventilation, these are covered with window screen. Inside is placed a box about 14 inches square and four or five inches deep in which I place sods covered with straw shaped to make a good nest. Before placing the eggs under the hens I dust the hen with (Continued on page 495)



Sixty-two Columbian Plymouth Rocks constituted the display at the Greater Buffalo Show, November, 1915, at which Wilburtha Poultry Farm, Trenton Junction, N. J., won best display and the following prizes: 1-4-5 cock; 2-4-5 hens; 1-3-5 cockerel; 1-2-4-5 pullet, also both first old and young pens. In looking over this wonderful team of birds we were impressed by the abundance of striping in many of the males and the beautiful lacing shown in tail coverts of the females. Columbian Plymouth Rocks, during the past have had a general failing in lack of striping and color and it is remarkable to see how Wilburtha Poultry Farms, Columbian Rocks have progressed until now they approach any other breed of this color type with their beautiful striping and lacing. The cockerel shown in above picture was a very remarkable individual having a well striped hackle and saddle that would be difficult to criticize. He had a beautiful comb and excellent type and symmetry. In saddle and back finish he was very attractive having the desired broad sweep from base of hackle to tail giving him a true Plymouth Rock form in show finish. Wilburtha Plymouth Rocks have been winning very heavily during the past season and we doubt whether there is a team in existence that could outclass them in competition.—A. O. Schilling.



The Blue Andalusian

A Distinct Breed of the Mediterranean Family Which According To Early Writers Were First Found in Andalusia a Province of Spain First Importations Made to America About Fifty-Five Years Ago

BY HORACE G. MURPHY

Chairman of the Committee on Standard and Publicity of the Blue Andalusian Club of America

UNLIKE many other breeds of fancy poultry, the Blue Andalusian was not originated by the amalgamation of a variety of breeds. It is as truly distinct and original in its type as is the Black Spanish or Black Minorca.

The "Cottage Gardner" a very reliable English publication, written 56 years ago (February, 1860), said of the Andalusians: "They (the Andalusians) are said to be a distinct breed, and they certainly are not the same as the Black Spanish." This statement is in harmony with all other reliable authority on the subject which has come to my notice. The only controversy with reference to their origin relates to their color—whether the original Andalusians were blue, or whether the blue coloring has been produced by crosses between whites and blacks. Even if the later be true, it is not necessary to assume that the cross between whites and blacks was by bringing in strange breeds, such as Spanish and Minorcas, for it could have been done then as now, by crossing white Andalusians with Black Andalusians. The article on Mendel's Law in the 1914 annual, issued by the Blue Andalusian Club of America, will explain this principle most satisfactorily. But, as will be seen in the facts hereinafter related, the Blue Andalusian is as time honored as is either of the other two colors of the breed.

Three Distinct Colors

It is positively affirmed in the "Cottage Gardner" and other publications of equally high and reliable authority, that originally, as now, the Andalusians were known to be of three distinct colors, white, black and blue. Those early writers give a great deal of space to reporting experiments where full hatches of true Blues were produced by crossing white or white splashed Andalusians, with blacks. But the same results are now obtained in that way; and those same writers also gave accounts of producing their best types of black and white "sport" Andalusians by breeding true blues, just as we now find our black and white "sports" resulting from our best fancy blue breeding pens.

It is probably true that later in the development of the

breed, when the English Fanciers undertook to develop the present beautiful lacing that crosses of Black Minorca and Black Spanish were brought in with certain strains of the breed; but it also appears that the result of such crosses was so detrimental, both as to type and to color, that it was discontinued.

If a cross with black was necessary to produce the lacing, it is most likely that the Black Andalusian was used, because in that way there was no loss in type suffered in making the

experiment. In any event, we know that the Andalusian as a breed had been well established, and had long been exhibited, before those experiments were undertaken; for we have it recorded by Harrison Weir that as early as 1853, three colors of Andalusians—blues, without lacing, whites and blacks—were exhibited by John Taylor in the Baker Street Show, London. At that time the Andalusian had a fixed type and had the three well known and established standard colors. The present name of the breed, even then, had a fixed place in poultry history.

According to our best information, lacing was developed between the years of 1853 and 1865, and has ever since been an essential in Andalusian coloring.

Nativity

The Andalusian is a native of Spain. The first specimens of the breed, of which we have any record, were found in the province, or district of Andalusia, not far from the city of Cadiz. Harrison Weir, a reliable English author and fancier, in giving the place of nativity of the Andalusian says: "Leonard Barber imported fowls to England from Andalusia in 1846-7—in a few instances they are pure white, and in shape and carriage exactly like the Black Spanish, only wanting the white cheek patch. Some of these birds were of the blue-gray or slaty color. My fowls came from Xeres de la Frontera in Andalusia, about twenty-five miles from Cadiz." The name "Andalusian" is taken from Andalusia, their place of nativity.

English Influence

Referring to English influence on the Andalusian, Mr. Weir (Continued on page 486)



In the March issue of this journal appeared a faithful likeness of the first prize S. C. White Leghorn cockerel at the recent Boston Show and in the above illustration we present the likeness of the individual that won second honors in the same class for Owen Farms, Vineyard Haven, Mass. This pair of males were the center of much attraction during show week. The fact is many breeders were at a loss to decide which of the two they really preferred. The above individual had some qualities that may be considered superior while the winning cockerel had other qualities that could not be approached by his nearest competitor, yet at the same time they presented a striking resemblance to one another and apparently are full brothers from the same mating. Owen Farms, White Leghorns seem to possess an individuality evidently due to the fact that they have been bred as one family for years past. Consequently these "strain" characteristics become more and more evident as the process of selective breeding is carried on. The above cockerel was one possessing a beautiful five point comb very smooth in texture and had remarkable style and grace. He was beautifully developed in saddle plumage which covered the base of tail forming that much desired concave sweep. These are the qualities that appear very strong in Owen Farms White Leghorns. They are characteristics which are appreciated by Leghorn breeders who know the difficulty in producing them.—A. O. Schilling.

Handling Breeding Stock in Confinement



Herewith are a Series of Questions and Answers Setting Forth How Unusual Results in Securing High Fertility From Breeding Stock in Confinement has Been Obtained. Should Prove of Value to Every Reader

By Homer W. Jackson

ONE of the poultry breeder's most difficult problems is that of getting a good degree of fertility and hatchability in the eggs that are produced by fowls in confinement, especially during the winter months. Lack of sufficient exercise is largely responsible for this, but there are other conditions that enter into the matter and while many of them are avoidable with the better methods of care and breeding the fact remains that, even in the flocks of skillful breeders, good fertility and strong, vigorous germs are the exception and not the rule.

Prof. M. A. Jull, Manager of the Poultry Department of MacDonald College, Quebec, has had special occasion in this far northern climate for studying the problem of how to secure fertile eggs from fowls in confinement and has been highly successful, securing percentages of fertility during the winter season that the average breeder seldom exceeds under most favorable conditions at any time of the year.

Recently we addressed Prof. Jull a few questions regarding the methods he employed in getting so unusual results and we are sure that A. P. W. readers will find his replies, given herewith, of special interest and value.

Question. When breeding flocks must be confined to house pens throughout the winter, how are you able to secure good fertility in eggs and strong vitality in chicks?

Answer. Good fertility in breeding flocks which are confined throughout the winter may be secured in various ways. Stud mating usually insures high fertility. By this method the maximum number of fertile eggs may be secured from one male breeder. Care should be exercised, however, to keep the male in the best possible condition and also it is not advisable to mate too many females to one male, the exact number depending upon the individuality of the male.

A small pen of females with one male usually gives good fertility, best results being secured when eight or ten females are allowed with one male. Where the stock is in good condition fertility in such cases should run well over 95%, the individuality of the male, however, being very important. It has been found that certain males from a good breeding strain may prove to be poor breeders, but where a limited

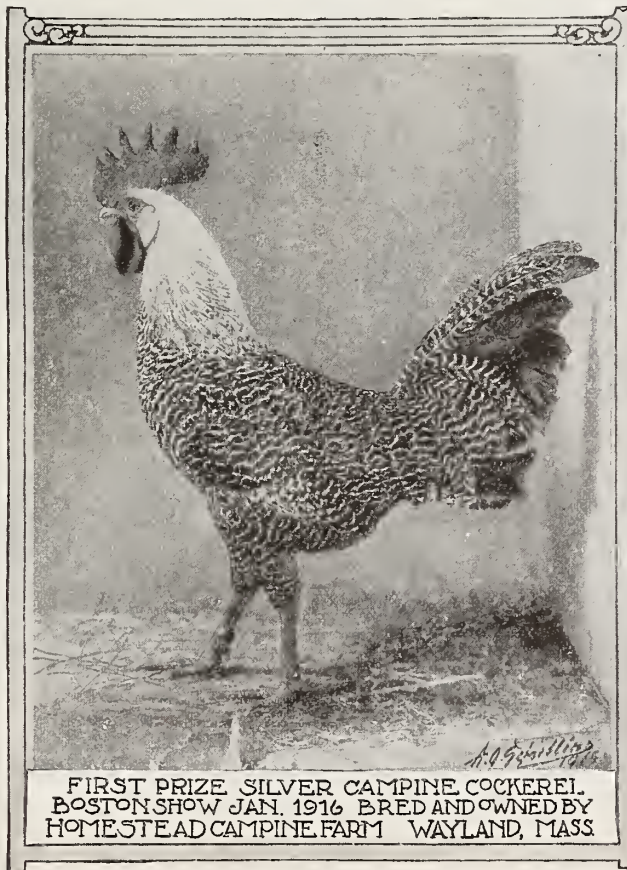
number of females are placed with the average male good results usually follow. The writer knows of one case where a White Plymouth Rock cockerel was mated to thirty White Plymouth Rock females and the fertility ran over 85%. Such a case, however, is the exception, the male in this case being an extremely good breeder.

With large breeding flocks, good fertility may be secured through the use of breeding boards and by practising changing of cockerels. Where the flock of females is 50 or more in number one or two breeding boards may be placed in the pen. These breeding boards are simply boards about two feet high, six feet long raised six inches off the ground, placed on stands and located in different parts of the house in such a manner as not to obstruct the light from the windows and at the same time tend to give the male birds a certain amount of protection and concealment in mating.

The practice of changing cockerels every other week, providing the individual cockerels which are exchanged are of the same breeding strain, will usually tend to give a higher percentage of fertile eggs than where the same bird remains in the pen continuously. At the same time where cockerels are exchanged, particularly after they have been in the breeding pen for a while, considerable fighting takes place.

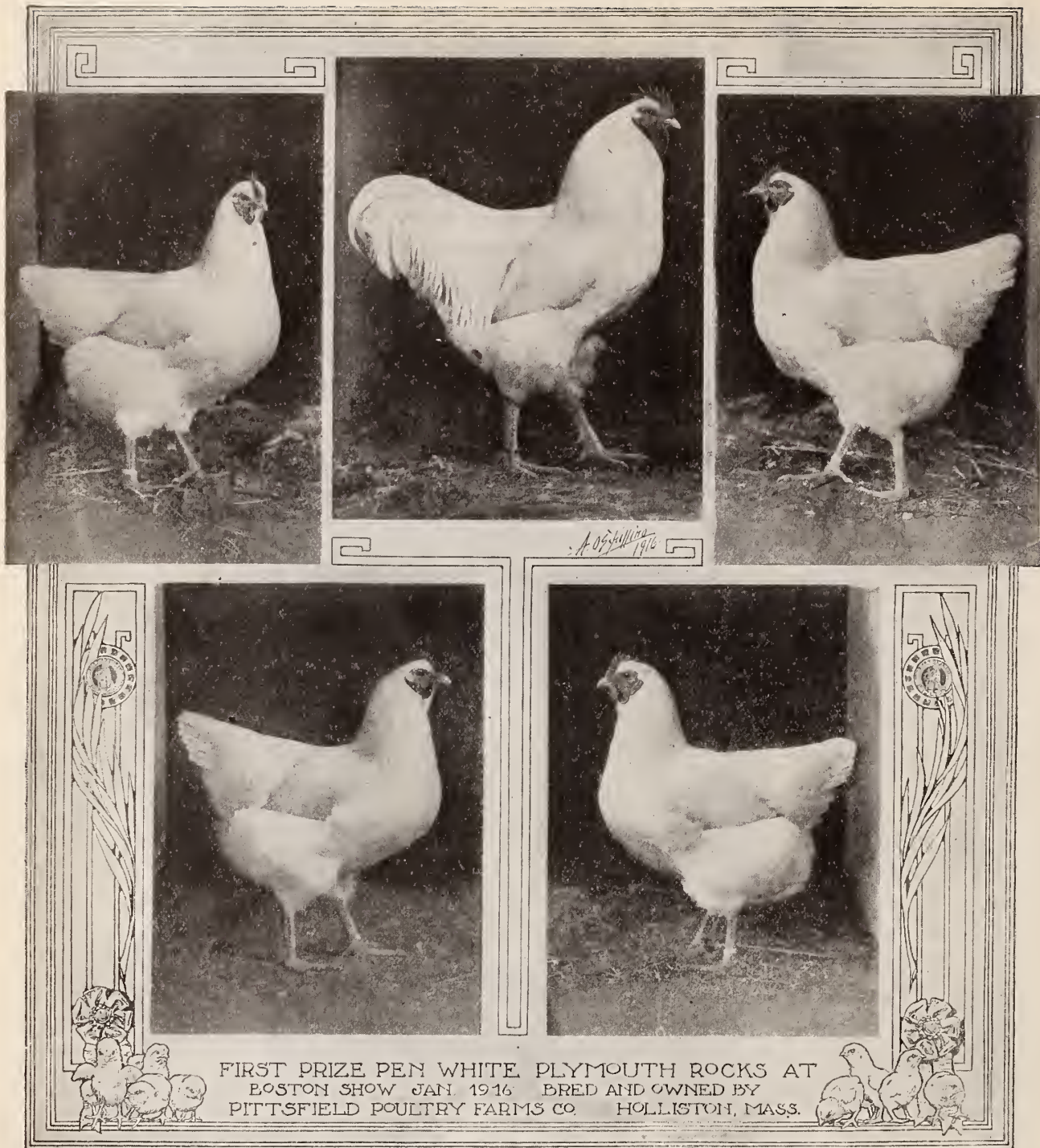
Last year a pen of forty single comb Rhode Island Red females mated to four males gave 88% fertile eggs from early in February up to May. A pen of forty White Wyandotte females, mated to four males, gave 83% fertility. A pen of forty Single Comb White Leghorn females with four males gave an average of 88% fertility throughout the season. A pen of 150 Barred Rock females, mated to twelve males, the female flock being divided in three pens of fifty each, gave an average of 80% fertility, while two flocks each of 100 of Barred Plymouth Rock females, mated to eight males, gave an average fertility of 82%. Breeding boards were used with the flocks of Barred Plymouth Rocks. In practice it has been found that Leghorns will usually run a little higher in fertility than other breeds. The fertility and hatchability of the eggs are very uniform throughout the season.

Question. Does limiting the number of hens mated to one male have any effect on vitality of chicks? (Con. on p. 488)



FIRST PRIZE SILVER CAMPINE COCKEREL.
BOSTON SHOW JAN. 1916 BRED AND OWNED BY
HOMESTEAD CAMPINE FARM WAYLAND, MASS

The above illustration represents first prize Silver Campine cockerel at the Boston Show, January, 1916., where he won first honors in a class of nine birds shown by some of the best specialists in the east. He was a large active bird with a long well spread tail and excellent marked coverts which were well barred to the end, as shown in the illustration. He should develop into a cock of excellent type when fully matured as he has the desired size and bone which seems to be one of the characteristics of the "Vigorous Strain." His neck hackle was quite clear considering his strength of body and wing color. The record of Homestead Campine Farms at Boston Show two years in succession is unapproached. This season this wonderful team of Silver Campines won as follows: 1-2-3-5-6 cock; 1-2-3-4 hens; 1-3-4 cockerels; 1-3-5-6 pullets and 1-2 pen. Their record of last year was equally as good in the percentage of prizes won and in addition to this, they have also been unusually successful at such shows as the New York Palace Show and Syracuse State Fair Exhibition during the past season.—A. O. Schilling.



It was at Boston Show, January, 1916, that the above group of White Plymouth Rocks won first honors in the pen class for Pittsfield Poultry Farms Co., Holliston, Mass. This pen seemed to be the center of much attraction and stood out prominently as prospective winners before the ribbons were placed. The male at the head of this pen was one of the finest we have ever seen anywhere. He was somewhat above the average size, but despite this fact possessed the refined lines, balance and symmetry of similar specimens of Standard weight. He was really a most attractive individual not alone on account of his exquisite form, size and finish, but in color he appeared without a fleck or blemish in any part of his plumage. The four females shown with him matched beautifully, having plenty of size and elegance of form and symmetry to harmonize with the male. As a whole they were one of the most attractive pens in the show. As a cockerel this male won first prize in the cockerel class during the previous winter, but in our opinion he seemed even superior in his present size and development as a cock. The record of Pittsfield Poultry Farms Co., at the recent Boston Show was fully as good as any made in previous years in the Barred and White Plymouth Rock classes. It is farms of this sort that are conducting the day old chick business on a large scale, that poultrymen throughout the county should patronize. Quality is the prime consideration and pure bred exhibition stock produced from their own matings are positively assured when customers purchase day old chicks from an establishment of this kind. These are the methods that will make the poultry business bigger and better and put it on a sound and solid foundation.—A. O. Schilling.

Shade and Green Food for Chicks

Two Very Important Essentials in the Care and Management of the Growing Chick. How Well-Known and Successful Breeders Arrange For a Continuous Supply of Both

IN the successful management of the growing chick shade and green food are two very important factors and success to a large degree depends upon how they are supplied.

How often during the hot summer days do we walk into the yards of a breeder, particularly the small breeder, and find them barren of both shade and green food. When we gaze upon his crop of chicks how apparent the lack of these important essentials is reflected in the condition of the chicks. They have a drawn appearance, their feathers are matted and ruffled and they show a general discontent with prevailing conditions. That any survived is due to the fact that they are constitutionally strong and have made a fight for life, but their vigor has been impaired by improper conditions and they will never make first class candidates for breeders, as the energy and vitality that they should have and be able to transmit to their progeny has been consumed in battling for life under conditions that nature never intended should prevail.

There is no excuse for such conditions as both shade and green food can be supplied artificially where conditions are adverse to their natural growth and to raise such chicks as one should feel obligated to raise he must be willing to put forth the extra efforts to provide shade and greens, if attempting the successful raising of chicks in locations where nature does not provide either or both. With a full understanding of the fact that there are altogether too many poultry raisers striving for success without giving the proper attention to these most important factors the publishers of A. P. W. requested several poultry raisers who have acquired a high degree of success to tell the readers of A. P. W. how they made provision for both shade and green food for their chicks during the summer when the heat is at times so trying on the development of the chick.

These men have learned from experience that they cannot afford any set back in the development of the chicks as any stoppage of growth be it ever so slight is never recovered and is sure to manifest itself to the detriment of both the specimen and the breeder at some later date. We appeal to every reader of A. P. W. who wishes to raise "better poultry and more of it" to read carefully what each breeder has written and then resolve to try and provide better conditions—meaning a constant and regular supply of shade and green food during the summer.

Replies have been received from the following well known breeders:

Longfield Poultry Farm Bluffton, Ind.: R. C. Rhode Island Reds.

Theo. Poole, Dewitt, N. Y.: White Plymouth Rocks.

George Rex, Slatedale, Pa.: S. C. Buff Leghorns.

W. S. Stuver, Wadsworth, Ohio: Speckled Sussex.

W. M. Anderson, Mgr. Turtle Point Farm, Saratoga Springs, N. Y.: S. C. and R. C. White, S. C. and R. C. Brown, Black and Silver Leghorns.

Elton C. Mahon, Norwood, Tenn.: Buckeyes.

Cornfields make ideal place for growing chicks says D. K. Williamson proprietor The Longfield Poultry Farm, Bluffton, Ind., specialist in the production of R. C. Rhode Island Reds. Finds Swiss Chard an Ideal Green Food.



In the above illustration is shown a Barred Rock cockerel bred and owned by John W. Yant, Canton, Ohio. At the Chicago Coliseum Show where Mr. Yant's fine display won its usual share of honors, this male was pointed out to as being an unusual specimen in type and color, although at the time he was not fully matured and finished in plumage. We could not help but admire his excellent barring which possessed, brilliancy and snappiness throughout the entire surface color. While in undercolor he was exceedingly strong carrying a depth of barring that is quite unusual. Mr. Yant has produced hundreds of high quality Barred Plymouth Rocks in past years and enjoys the confidence of his customers. He has built up a trade as a Barred Plymouth Rock specialist and today he is breeding some of the best Barred Plymouth Rocks in the middle west and they are winning both for him and his customers as their past record will prove. In a class of 150 single entries and 25 pens, Yant's Barred Plymouth Rocks won 1st prize exhibition cock, 2-5 pullet, 1st exhibition pen, and 1st prize pullet-breeding pen. The above is a record that any Barred Plymouth Rock breeder may feel proud of and we hope that Mr. Yant may continue to build up his reputation in future years.—A. O. Schilling.

WE have one hundred and fifty acres and practice general farming along with our chickens. We always plan to have cornfields near our ranges and this forms an ideal place for the chicks to run in during the hot weather. Young fruit trees also furnish shade in the yards. A shade that we make that the chicks enjoy greatly is very easily constructed. We take four stakes and drive them in the ground allowing them to stand 16-inches high. We then take a large dry goods box to pieces and nail the boards onto two running boards. This is then placed on the stakes and a nail driven through it into each stake to keep it in place. A few of these scattered over the range are also a protection where hawks bother as chicks will run for them on the appearance of any hawks.

Our chicks are always on grass range and unless the season is dry this gives a great deal of green feed. We also use a great deal of Swiss Chard and find this an ideal green food. We plant it as early as possible after the danger of frost is past. As it comes up again after being broken off it furnishes feed all season. We plant it to the exclusion of all other green feeds. Longfield Poultry Farm, D. K. Williamson.

Theodore Poole owner of Hiawatha Poultry Farm, Dewitt, N. Y., breeder of White Plymouth Rocks, feeds sprouted oats, and Mangels cut fine, for green food and in addition to natural shade grows Sun flowers and puts up Burlap protection.

FROM the time the chicks are a week or ten days old I give them all the dry mash they (Continued on page 481)

Common Diseases of Chicks



A Review of the Several Causes That Directly or Indirectly Influence Mortality In Young Chicks That Should Be of Valuable Assistance to Breeders in Determining The Cause of Trouble

By A. G. PHILIPS

Division of Poultry, Animal Husbandry Department, Purdue University Experiment Station.

YOUNG chicks die easily and quickly, sometimes immediately after hatching, sometimes later. The average cause of these deaths can be properly attributed to one or more of the following: (1) General weakness. (2) Improper incubation, causing weakness. (3) Overheating. (4) Chilling. (5) Dampness. (6) Digestive troubles. (7) Bacillary White Diarrhea. (8) Aspergillosis. (9) Gapes.

Lack of Vitality

General weakness or loss of vitality is the main cause of chicks dying; this weakness having been caused by lack of vitality in parent stock, improper keeping of eggs, or improper incubation. Many chicks live for a few days and then gradually weaken and die from no apparent cause. They do not possess the vigor to live, and the best possible care could not have kept them alive.

Methods of Brooding

Overheating, chilling, dampness, crowding and keeping in close, impure air, all tend to weaken the chick and cause a whitish diarrhea, which some people confuse with infectious or Bacillary White Diarrhea. This is a wrong conception, and medicines need not be resorted to in order to cure such troubles. Prevention is much better, and Epsom salts combined with antiseptic drinking water will work just as well as many so-called cures. Diarrhea, caused by the above conditions does not act as quickly as the infectious disease, and can therefore sometimes be distinguished from it.

Improper Feeding

Early feeding or the use of too much concentrated feeds, such as beef scraps, and sometimes skim-milk, cause digestive derangements, that develop into diarrhea. Close watch of the chicks will help in correcting such trouble.

Bacillary White Diarrhea

This disease must not be confused with the above troubles, even though externally, the indications are similar.

Symptoms. Chicks so affected stay near the heat, lose all appetite and desire to move around, and have a general sickly appearance. The droppings are loose and form a ball below the vent, giving the appearance often called "pasting up behind." The New York Veterinary College finds the following things to be true regarding this disease: "(1) The

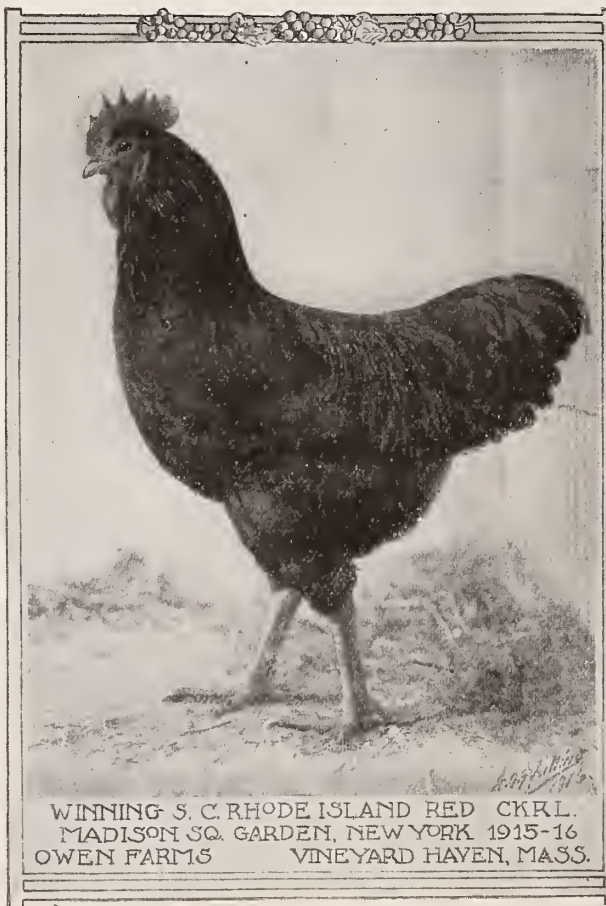
organism is called 'Bacterium Pullorum.' (2) This organism causes fatal septicemia in chicks. (3) Chicks are most susceptible during the first twenty-four hours of life. They are less susceptible after they have reached the age of forty-eight hours. They are apparently immune from infection after the fourth day of life. (4) Adult fowls are not susceptible to the disease. (5) Bacterium Pullorum was found in the egg. (6) The disease seems to be introduced into new districts by the indiscriminate buying of eggs for hatching, and the purchase of day old chicks from infected poultry farms. (7) Chicks overcoming the disease and being reared to pullet-hood may in turn lay eggs containing the germs, and in that way continue to spread the disease."

Thus the disease may be transmitted: "(1) Through the egg. (2) By direct contact in the incubator with chicks that have acquired the disease through egg infection. (3) By day old chicks being placed in contaminated surroundings." Conn. Bulletin No. 68, states that this disease organism is found in the reproductive organs of hens.

Prevention seems to be the only remedy, and the best prevention can be brought about by segregating the chicks until they are at least four days old, and by a very careful and thorough disinfection of incubators, brooders, litter, drinking and feeding vessels, and in fact everything with which the chicks may come in contact.

A few chicks recover from the disease, but most of those affected show signs of this disease shortly after being hatched, dragging out their existence for several days.

In order for a poultryman to know whether or not the chicks are really affected with Bacillary White Diarrhea, and not something else, it will be advisable for him to make a postmortem examination of some of the dead chicks. If it is Bacillary White Diarrhea, examination will show the crop, stomach and gizzard to be pale in color and containing a slimy fluid. The liver shows bright red stripes running across it, the rest of it being a dull red in color. It is generally soft, but not enlarged. The unabsorbed yolk is usually present. This differs in appearance according to the progress of the disease. If the bird dies early, the yolk is watery, in cases of longer standing it may be gelatinous or cheesy. Many times the umbili- (Continued on Page 519)



WINNING S. C. RHODE ISLAND RED CKRL.
MADISON SQ. GARDEN, NEW YORK 1915-16
OWEN FARMS VINEYARD HAVEN, MASS.

We have seen most of the S. C. Red males cocks and cockerels exhibited by Owen Farms, Vineyard Haven, Mass., at New York and Boston Shows. Among the choicest of these is the subject shown in above illustration. He was a bird of excellent size, good length of body and full of vigor and action. In color he was superb having a lustre and richness that is unusual. He had a head that expressed vitality and vigor and there were many other points about him that the careful breeder would observe and consider very important when selecting a choice breeder. Expert poultrymen like Messrs. Delano and Davey readily recognize these qualities which is without a doubt one of the reasons for their unusual success during their career as producers of high class exhibition fowls. We look forward to some wonderful results from the Rhode Island Red matings at Owen Farms, the coming season as we have had the pleasure of examining many of these specimens at shows during the past winter.—A. O. Schilling.

Wisconsin's Agricultural College

Poultry Work

Professor Halpin Who is in Charge of the College Poultry Work has Several Interesting Experiments Under way Including the Study of Poultry Diseases, Experiments in Feeding, Breeding, Etc., Etc. One Thousand Hens Wintered and From Three-Thousand To Four Thousand Chicks Raised Annually.

By Homer W. Jackson

IT was a matter of regret to me that on my first visit to this great institution I had no opportunity to visit the university proper, or to give attention to the many things of general interest to be seen there. Having only a limited amount of time at my disposal, I gave my entire attention to the Poultry Department and found more than enough there to occupy my time.

The buildings and offices of the department are a little more widely scattered than at any other institution I have visited. I did not visit the main offices and classrooms, which are in the Chemistry building, about a block from the poultry plant, going directly to the plant, which is located on the outskirts of the city.

The Plant

Here is to be found the main poultry building with feed rooms, incubator cellar and a classroom for laboratory practice. A large open-front laying house, shown herewith, is nearby, also a number of colony houses of the type illustrated, where the chicks are brooded until they are large enough to take care of themselves. After this they are transferred to other colony houses on the range, which is at some distance from the plant. This range is studded with large forest trees and affords ample shade for the growing chicks during the summer and appears to provide ideal conditions for their development.

About 1,000 hens are wintered regularly and 3,000 to 4,000 chicks are raised each year. A number of breeds of chickens are represented in the flock, mainly for the benefit of the students. I presume, also some turkeys, geese and ducks, most of the water fowl being kept on a third plot where they can have access to running water. At a fourth point, located about half a mile from the main plant, as I recall it, is the Research Division, where a large number of fowls are used exclusively in experimental work. This place is far enough from the city and from the rest of the department buildings to insure a reasonable degree of privacy, which is required for careful experimental work. Professor Halpin is conducting some important experiments here, the work being along three different lines.

Poultry Disease

Special attention has been given to the study of avian tuberculosis and some definite results have already been secured and published in a Research Bulletin—out of print, of course as is usual with poultry bulletins soon after they are

issued. Roup, chicken pox and similar diseases also have received careful attention, this being the first station in the country to do any work in vaccine treatment for chicken pox.

As I have already mentioned in discussing similar work elsewhere, some of the results secured here have been highly gratifying and some have not been so satisfactory. Professor Halpin considers the vaccine treatment still in the experimental stage and does not like to make too definite statements about it. I am glad to be able to say, however, that he has consented to write an article for an early issue of the A. P. W., giving some of the results secured to date, which article is certain to be of special interest and value.

Feeding Experiments

This work is limited mainly to restricted grain rations. That is, Professor Halpin is taking up one point at a time and one after another in a most systematic manner. Present experiments have to do mainly with the efficiency of the proteins of different grains. Considerable work also has been done on the ash content of rations, especially with reference to calcium (lime) carriers.

Breeding Experiments

These are mainly concerned with the effect of in-breeding and naturally will have to be carried on for years before results will be secured that will warrant definite conclusions. Poultrymen generally will be glad to learn that such work as this is under way and results secured will be highly interesting.

I was especially pleased to learn that Professor Halpin has adopted the definite policy of trying out many experimental projects with very small numbers of fowls, as a preliminary step to making similar tests with flocks of large size. The plan at Madison is to use pens of not over three birds, keeping them under conditions that make it possible strictly to limit variable factors to the single one under observation and to keep each individual bird under the closest observation. A given method or ration having been tried out under these conditions and results noted in great detail, the investigator then is able to determine whether or not it will be worth while to repeat the experiment with flocks of commercial size.

I believe that in many instances our poultry investigators have sadly handicapped themselves by attempting to demonstrate the effect of different rations and methods with flocks of large size without first having made preliminary tests on a limited number of individuals. In many instances the theoretical value of a ration or method (Continued on page 500.)



LAYING HOUSE, POULTRY DEPARTMENT, UNIVERSITY OF WISCONSIN

This fifteen-pen house is of the usual "open" type but as will be noted, it provides less muslin-shuttered front than generally is found in houses farther south. Houses of this general type may readily be adapted to climatic requirements and have no equal in practical use.

AMERICAN POULTRY WORLD



DEVOTED TO THE
**Upbuilding of the Poultry Industry
in All Branches**

GRANT M. CURTIS, Editor
WM. C. DENNY, Associate Editor
W. A. WOLFORD, Associate Editor
ARTHUR O. SCHILLING, Artist
CONTRIBUTORS: The best informed and most
reliable men and women at work today in the
broad field of Poultry Culture and advancement

EDITORIALS

THE STANDARD-BRED POULTRY BUSINESS IS AGAIN QUITE GOOD, ALL THINGS CONSIDERED

REPORTS continue to come to hand to the effect that sales in breeding stock, eggs for hatching and day-old chicks are far more satisfactory than was the case a year ago, including all of last season. The sale of exhibition specimens last fall and early winter was fair—was decidedly better than twelve months previous, month for month, though it was not up to normal.

Prices during the present season, both for exhibition birds and for breeding stock, have ranged lower than during normal years—probably 20 to 40 per cent. lower. That was to have been expected. Previous to the outbreak of the old-world war, also during the first twelve months of that calamity, some one—as the saying is—stepped on the public pocketbook and flattened it out considerably. This means that the “buying power” of the general public was materially reduced—and it has not yet got back to an average condition.

For years foremost fanciers have complained that they were not able to find a sufficient demand for moderate-priced fowls. They reported that it was easy enough, as a rule, to sell each season the limited number of top-notchers, also that the demand was good for the next best grade, etc. Lately this condition has been otherwise. A number of prominent poultrymen have written us that since

early last fall they have sold larger numbers than usual of show specimens and breeders, but the total money received was not as much as formerly, not by quite a little.

Money does not come out of a thin pocketbook as freely as it does out of a fat one. As E. B. Thompson said lately—while he was president of A. P. A.—“the general public is just as much interested in fine poultry as it ever was.” He then went on to say that the same widespread fondness exists for choice fowls—that it is only a question of being able to afford the money to indulge in this “fancy”, or to embark in the breeding of poultry as a business. We agree with Mr. Thompson fully in this view. When the average pocketbook fattens again the former demand will return full tide—and it will be increased by two facts: first, a larger population; second, by our having the wealthiest population in all the world.

NINE, twelve and fifteen months ago—meaning the entire period thus covered—thousands of poultry keepers were forced or frightened out of this field of effort by war conditions, by the talk of \$2.00 wheat, by the foot and mouth disease quarantine, by unemployment or the danger of same, etc. Furthermore, literally tens of thousands of others who would like to keep fowls for pleasure or profit, or both, were deterred or prevented from gratifying their wish, on account of the conditions here mentioned, including the lack of ready money.

A. P. W. figures that of the tens of thousands—perhaps several hundred thousand—that were prevented or deterred from keeping poultry during the season of 1914-1915, not more than sixty to seventy per cent. have got back into line, if that many. To express it another way, probably where, in a normal year, there were five people as “prospects” for the purchase of standard-bred fowl, eggs for hatching, poultry equipment, etc., at present there are not more than three persons who are interested in purchases of this kind. To have but three persons, or three hundred persons, or three thousand and persons to whom to appeal for orders, in place of five, or five hundred, or five thousand, makes quite a difference, as may readily be understood. Speaking for ourself, we believe that this condition of “three prospects,” as compared with “five prospects” in normal years, actually exists at the present time. But it is a condition that is being remedied daily by a return of general prosperity.

In order to be in the market for choice standard-bred fowl, or for hatching eggs or day-old chicks therefrom, the individ-

ual man or woman has to have some ready money, even though it may be only five or ten dollars. This money has to be “spare cash”, so to speak—it needs to be money in excess of the usual family payments or household requirements. When we stop to think of the conditions that existed from August 1st, 1914, to mid-summer of 1915, as regards unemployment, operatives on short time, etc., we can appreciate that there was not a great deal of ready money, so far as a wide distribution of cash was concerned. Unquestionably this affected the standard-bred poultry business in all branches.

So much for personal indulgence, as regards the widespread fondness for choice fowls. When it comes to the matter of really “going into the poultry business,” the conditions a year ago were even more adverse. To go into the poultry business calls for an expenditure of what may be regarded by the individual as quite a sum of money. In many cases this is true if the sum to be spent is only \$50.00. It is true also if the sum to be invested is \$500.00. The same holds true likewise in the case of several thousand dollars. When ready money is scarce, it affects people horizontally, so to speak. The fifty-dollar man is “short”; the same rule applies to the five-hundred-dollar pocket book, and the same condition holds true of men who, in normal times, could spare two or three thousand, or five to ten thousand dollars as readily as others could afford to invest fifty to five hundred dollars.

All these general facts affect conditions in particular. Here, there and everywhere they reach down to individual cases and make it unwise or impossible for many thousands of persons to gratify their hopes or their wishes to embark in the poultry business, either as a means to a livelihood or as a side line. But with the return of prosperity, all this will be changed. And prosperity, let us assure you, reader, is on the way back to us. This is clearly true as compared with twelve to eighteen months ago, and we believe that the present favorable conditions are going to continue in our country for a long time to come.

THIS year, thank goodness, we have heard nothing, or practically nothing, about the foot and mouth disease quarantine. A year ago last fall this quarantine hit the standard-bred poultry business almost as hard as did the financial effects of the old-world war. Poultry shows had to be abandoned and shipments of live fowls were interfered with or stopped in no less than twenty-two states. It was mid-summer of 1915 before live

fowls could be shipped freely into Canada from this side of the line. Not satisfied with war troubles, as affecting finances and employment, Dame Fate handed us the foot and mouth disease quarantine, and then for good measure she threatened the poultry industry with two-dollar wheat. We are frightened with nothing of that kind this season, and general business conditions unquestionably are rapidly on the mend. In numerous lines of business, old-time prosperity positively is at hand.

Also the matter of the present low prices of poultry foods, as compared with a year ago. Early in February of this year there came a remarkable break in grain prices at Chicago and elsewhere. Wheat was selling at \$1.38 per bushel—30 cents less per bushel than the year before; but within ten days the price dropped to \$1.05 per bushel and it has remained in that neighborhood ever since. At present cash wheat on the Chicago market—the high quality kind for flour making—is quoted at \$1.07 to \$1.09 per bushel. This is indeed a big difference—a favorable difference to poultry keepers—as compared with a year ago.

Unquestionably this big drop in grain prices, as compared with the high and unsettled prices of the season of 1914-1915, came to the relief of poultry raisers in time to be of great benefit during the remainder of this season—in fact, during the period when the great bulk of poultry foods are used for breeders, newly hatched chicks and growing stock. By this fact alone, tens of thousands of persons will be induced to either take up poultry keeping or to extend their present operations in that line.

We now hear reports of this kind on every hand, so to speak. It is natural that it should be that way. As the result, we shall soon have "four prospects" to every five, as compared with normal times, and probably during the season of 1916-1917 we shall get back to the old basis. In our opinion, the chances are several to one that this will be so. Conditions now are generally favorable, and this soon will put heart back into many poultrymen who found it heavy sledding during the spring of 1912, 1913, 1914 and 1915—four such springs in succession.

—O—

WE are told that it is a poor rule that doesn't work both ways. During the season of 1914-15, the foot and mouth disease quarantine worked a severe injury to the poultry industry. Now it appears that this same quarantine is to benefit poultry raising and egg production. The following news dispatches of recent date from the daily papers furnish the evidence:—

"Chicago, Ill., By the Associated Press, March 23.—Cattle brought the highest price today in the history of the Union stockyards for the month of March. Prime steers were sold at \$10.05 per 100 pounds. A scarcity of choice cattle among the farmers was given as the reason for the unusually high price which the steers brought. Buyers predicted that within two months choice cattle will bring \$11.

"Reports from farming districts throughout the United States indicated that choice cattle were scarce at all markets. This was caused by the recent foot and mouth disease in Illinois, Indiana and Iowa.

"Only 40,000 head of steers were shipped into the Chicago yards this week, which was 20,000 less than shipped by farmers the corresponding week of last year.

"East Saint Louis, Ill., March 23.—The highest price ever paid for lambs at the National stockyards here was recorded today when 509 Colorado lambs sold at \$11.70 for 100 pounds."

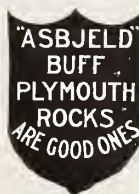
Conditions are now favorable for the profitable raising of cattle, hogs and sheep for table use—and the same is true of poultry and eggs for the same purpose. The prices of feeding stuff are much lower than a year ago—are getting back to normal, in fact,—whereas it is clear that the prices to be obtained for meats of all kinds, including poultry, also for table eggs, will be high enough from now on to insure reasonable profits. This is exactly the condition that existed in mid-summer of 1914, at the time the world war came upon us out of a clear sky.

As for farmers, they really ought not complain. Dollar wheat and seventy-cent corn mean profitable prices for them. They are sure to receive good prices for another year or more. This is true, notwithstanding the fact that large portions of last year's wheat and corn crops are still in the farmers' bins and cribs. On the other hand, Europe still needs all of the foodstuffs that available ocean-craft can carry to her, along with other necessities of warfare, while meantime the purchasing power in this coun-

try is improving daily. Our own people, from now on, can eat more heartily, because most of them are back at work at good pay. All told, the conditions are favorable. They are more than that—they are encouraging and reassuring, clearly and decidedly so.

—O—

THE United States is growing richer by the minute. This is especially true when we come to compare its present fortunate condition with that of the largest, most important and wealthiest old-world nations. Day and night they



Chicago Winners

Selected and bred for superior egg production as well as for exhibition qualities. Eggs from pedigreed matings \$5.00 per 15, \$9.00 per 30. 8 strong healthy chicks guaranteed from each setting.

I. M. ASBJELD

R. 4, Box 43, Alcester, So. Dakota



RED SUSSEX

Mating list ready. Send for a copy, and get the description of my pens and prices. You might as well send to headquarters and it will pay you to look into this breed of merit.

F. L. Platt, Swanton, Ohio

A. A. CARVER'S 1916 MATING LIST OUT

Rhode Island Reds and the Sussex Fowl.

Here is an eye-witness:

Crossele, Mich., March 6, 1916.
After making a visit to Carver's Red Farm and many others through the states I will have to say that I didn't find your equal. I found real Rhode Island Reds on this farm and a square man to deal with.

Yours truly, LOUIS ISABELL.
Our customers won this season at such shows as Buffalo, Philadelphia, Madison Square Garden, also won 50 ribbons at Chicago, New York State Fair, Ohio State Fair, Great Forest City and Allentown, including 27 firsts in tremendous competition.

A. A. CARVER SPECIALTY BREEDER
Box W, SEVILLE, OHIO.

S. C. BLACK
S. C. WHITE
SILVER

LEGHORNS

R. C. BROWN

R. C. WHITE

BLUE RIBBON WINNERS NEW YORK, BOSTON AND CHICAGO

Choice breeding and exhibition stock at reasonable prices. Eggs from choice matings \$2.00 to \$10.00 per setting. Baby chicks. If in search of the best in Leghorns you will eventually come to us, why not now? Descriptive mating list now ready. Satisfaction guaranteed in every transaction.

TURTLE POINT FARM,
W. H. MANNING, Owner

SARATOGA SPRINGS, N. Y.
W. M. ANDERSON, Manager

YOU WANT EGGS

Not only eggs that hatch but eggs that will produce the champion winners—that mean sure defeat to your competitors—just as the



HALBACH STRAIN OF WHITE PLYMOUTH ROCKS

have spelled absolute defeat to the idle claims of other advertisers. Let me furnish you with the best. You cannot afford to invest your time otherwise. Start right.

My free mating list tells about the champion pens. Eggs are only \$2.00 to \$12.00 per 15, but quality is of the undisputed champions. Do not regret later but look over these bargains today. Your copy awaits you.



H. W. Halbach, Box 500, Waterford, Wisc.



The value of a winning in the pen classes is considered much greater by many breeders than a winning in the single classes in view of the fact that it requires not one specimen, but five,—four females and a male—that are well matched, blending in harmony of color one with the other and of type and conformation that should resemble one another. In our opinion it is a greater achievement to win a second prize in such a class and for this reason Owen Farms need be congratulated in their success in carrying off two ribbons out of the five in competition such as we found at Boston Show during the past season. There were twelve choice pens exhibited at this show by ten of the best experts on the breeding of Rhode Island Reds in this country today. The fact that Owen Farms won 2nd and 5th prize in this competition verifies the statement that Owen Farms Reds rank among the very choicest in the world today and we have enjoyed the quality shown in the exhibits during the past season, especially on account of the wonderful color and the improved type displayed among their entries. The above cockerel was at the head of 2nd prize pen at the recent Boston Show and in our opinion he was one of the best colored males on exhibition. Although not as large and fully matured on account of lack of age, he may be considered a top notcher and will no doubt prove to be a successful breeder.—A. O. Schilling.

are impoverishing themselves to a frightful extent, whereas the United States and Japan are finding an urgent market at unexpectedly high prices for goods enough to block the railroads and force the allied countries to prohibit further shipments of so-called luxuries, (including automobiles for pleasure, as an example), so that there will be ocean transportation enough for food products, live stock, war munitions and various other supplies.

At present there are no better people on earth to whom to be privileged to sell goods than to Americans. They have the money, the habits and the high standards of living that call for liberal

expenditures. Moreover, this is going to continue for a period of years—probably five to ten years. Again we say, this is especially true when we compare conditions in this country with those which exist and that are growing worse daily in the great nations of Europe.

Even when the war ends the same general conditions will exist. There seems to be small likelihood of the United States being drawn into the war, in which case our enrichment will continue, and when the war ends these unequaled riches will remain in our hands. Such being the case, what better can Americans ask than to be permitted to sell their products to our own people—to the identical people with whose demands they are acquainted and whose need and tastes they are accustomed to supply?

All of the foregoing facts affect the standard-bred poultry business quite intimately. They affect our in-

dustry in a general way, also in particular. At present there is no better country on earth in which to do business, each in our chosen line, and this condition is going to exist for a number of

years—no doubt of it. These facts present a sound basis for encouragement, for progressive methods and renewed efforts. More and more we should study our individual problems and strive earnestly to develop still greater efficiency. And then we ought to join in thanking high heaven that three thousand miles of briny deep exist between us and sorely stricken Europe.

Grand Champion Ivanhoe



1st Cock, Shape Special and Champion Male,
Boston, 1916

Has proven his title by winning 1st cock, shape special and Champion Male at Boston, 1916. In competition with 90 Barred Rock males shown by 25 exhibitors (4 more birds than the entire open class at Madison Square Garden this season).

Three places on cockerels, two places on pullets, four places on pens. This with **Grand Champion Cock** makes us the highest or largest winners in these three classes. At Madison Square Garden, **three first prizes and best display** in competition with **International winners**, on **Single Comb Brown Leghorns**. A few eggs for hatching. Send for new Mating List.

GROVE HILL POULTRY YARDS

BOX 804, WALTHAM, MASS.

WM. E. BRIGHT, Prop.

F. G. COOK, Supt

Smith's White Leghorns

Another Great Win! My strain made the greatest winning at the Greater Chicago Show, January, 1916, of any exhibitor in the class. Won 1, 2, 3, 4, 5 cockerel; 1 young pen; 2 old pen; 2, 5 cock; 2, 3, 4 hen; 2, 4, 5 pullet; best display; etc. This great win, together with my big win at the Chicago Coliseum Show, December, 1915, and at the World's Fair at San Francisco, November, 1915, proves the quality of my strain. My winnings for the season were the most consistent of **any** White Leghorn breeder **anywhere!** Grandest matings in the country for 1916—matings that will produce **for you** and for me **real quality!** Let me prove it. Catalog telling all about my Leghorns sent free. Eugene Smith, 315 Galena Boulevard, Aurora, Illinois

BYERS' ORPINGTONS

BUFFS, BLACKS AND WHITES

You can ill afford to ignore my ability to now serve you liberally in the finest exhibition birds, or the best possible layers in utility stock.

C. S. BYERS (Orpington Specialist 18 Years) HAZELRIGG, IND.

A MODEL THAT CONFORMS TO THE WISHES OF BREEDERS OF BLUE ANDALUSIANS

On our front cover this month is another true work of art, showing an ideal or standard Blue Andalusian male, as recently endorsed and adopted by the Blue Andalusian Club of America. This is indeed a beautiful conception very capably executed and probably many of our readers who are keen admirers of the Mediterranean class of standard-bred fowl will pronounce it to be a handsomer piece of work than the wonderful Barred Rock male that adorned our front cover last month.

Unfortunately the picture of the ideal Andalusian male, as shown on page 168 of the 1915 edition of the illustrated Standard of Perfection, is not correct. There is a serious error in the word description of the color of the sickles and tail coverets—which error the artist has embodied emphatically in the ideal picture. The Standard states that the sickles should be of a “very dark lustrous blue” and that the tail coverets should be “lustrous blue,” whereas both should be a slaty blue, or much nearer this than a “dark lustrous blue”.

Interested readers of A. P. W. who compare the tail section of this latest “accepted” ideal of a Blue Andalusian male with the mournful looking tail shown on page 167 of the latest Standard will understand readily what is meant. Mr. Schilling has made also an ideal Blue Andalusian female, closely following the wishes of the active members of the Blue Andalusian Club of America, and the club is to publish these two pictures for the use of members and other friends of the breed. The officers of this club are, with addresses: President, Wm. O. Jennings, care Cyphers Incubator Co., Buffalo, N. Y.; 1st Vice-Pres., V. H. Councill, Warrenton, Va.; 2nd Vice-Pres., John McKibbin, 119 Erie St., Willoughby, Ohio; Secretary, H. L. Peck, 641 Grace St., Chicago, Ill.; Chairman Executive Committee, E. D. Bird, 43 5th Ave., New York City; Chairman Standard and Publicity Committee, Horace G. Murphy, Muncie, Ind.

Note on this page an article by Horace G. Murphy, Muncie, Ind., chairman of the publicity committee of the Andalusian club here mentioned. A. P. W. congratulates the members of this club on their commendable enterprise. In our best judgment this is one kind of publicity that really counts. As general business improves and the standard-bred poultry industry comes back into its own, far more of this form of publicity can be used to good effect, not alone by this club, but by others that have the same objects, as applied to other attractive and productive breeds or varieties of standard-bred poultry.

CAN BE MADE TO SUIT EVEN THE MOST CRITICAL

Under date March 8th, Frank L. Pratt, Swanton, Ohio, poultry judge and author, wrote us as follows, after receiving his March issue of the American Poultry World and noting on the cover the color-reproduction of a champion Barred Plymouth Rock cock, as bred and owned by A. C. Hawkins, Lancaster, Mass.:

“I am writing a note to Arthur Schilling, complimenting him on the March cover of

THE BLUE ANDALUSIAN CLUB OF AMERICA ORGANIZATION AND HISTORY

By H. L. PECK, Sec'y-Treas.

In the Fall of 1913, the writer while exhibiting and attending the Illinois State Fair, came in touch with several prominent breeders of Blue Andalusians, all of whom were of the opinion that a real live club, was needed to promulgate the merits of our beautiful breed. With this as a nucleus and the hearty co-operation of all, two meetings were called for the early winter shows. The first at the Palace, New York and the second at the Coliseum, Chicago. The New York meeting was largely attended and a detailed report of the proceedings furnished for the Chicago meeting at which place a permanent organization was effected, officers elected and matters discussed that were of vital interest to all.

Thanks to the poultry press, the club was given much needed publicity and by April first, the eighteen original members had increased in April, 1914, to ninety-one. The Secretary published and mailed the first annual Year Book when the Club was scarcely five months old. This achievement gained much favorable comment and the Secretary was in receipt of many flattering letters from all parts of America. Never in the history of a Specialty Club was a work of this character accomplished by an organization so young and I venture to say, without fear of contradiction, that this was the most attractive Club Annual ever issued. Ere this article is printed in American Poultry World a new year book for 1916, will be ready for mailing and it is our desire that everyone interested in Blue Andalusians write for a copy, enclosing three two cent stamps for postage.

In the course of two and one-half years the club has grown to 150 members. Upwards of \$200.00 in cash prizes and club ribbons have been given to all shows who have requested them. Through the efforts of club members the American Poultry Association has been induced to adopt a new type and color standard and for the first time illustrations of ideal Blue Andalusians male and female are in the Standard of Perfection. These achievements should cause every Andalusian breeder in America, to unite with us in an effort to put our breed and club in the place in poultrydom that it justly merits.

The Club desires to call attention to the beautiful reproduction in color of the club ideal Andalusian male as shown on the cover page of this issue. This masterpiece by the hand of A. O. Schilling was worked out under directions from our club. We also own the illustration prepared by Mr. Schilling of the ideal female, and it is as truly wonderful as the male. These reproductions are copyrighted by the club, cuts in various sizes for use on stationary, cards or advertisements have been made from them, and all members are urged to communicate with the Secretary that these beautiful cuts may come into general use by our members, to whom they will be furnished at a nominal sum.

The officers stand ready and willing to assist you at all times and urge that those raising Andalusians, either for pleasure or profit to unite in our efforts to make this beautiful breed second to none in America.

A. P. W. It is an exact picture—a true likeness of the bird, and the color comes nearer to the real thing than any color-plate work I have seen.”

Since receiving the foregoing comment, we have had a further talk with Mr. Schilling, and he states that if he were permitted to use one or two more colors in this process, he believes he could reproduce “true to life”, as regards color representation, practically every variety in the Standard of Perfection.

It would appear that Mr. Schilling is right about it. Numerous interested readers of A. P. W. will be surprised to learn, we have no doubt, that only three colors are used in this remarkable work. To date Mr. Schilling has tried his hand at six different varieties, to wit: Columbian Plymouth Rock male, Silver Campine male, S. C. White Leghorn male, S. C. Black Minorca male, Barred Rock male and a Blue Andalusian male. The results have been uniformly good, though not perfect. Mr. Schilling now feels that practical perfection can be attained, by the introduction of one or two more colors—in fact he believes that one color will do it sufficiently well.

Last month in these columns we ask-

ed the question: “Why would it not be well to introduce color work of this kind in the forthcoming Separate Breed Standards to be copyrighted and sold by the American Poultry Association?” It is intended to have each of the Separate Breed Standards consist of 200 to 250 pages, size of pages to be the same as the present main Standard, and to retail these Separate Breed Standards at not less than \$1.50 per copy for the regular edition—a cheaper edition, with paper cover to be put out at 50 cents, or perhaps 60 cents per copy. In the \$1.50 edition, it would be practical, as we believe, to introduce for each breed a full set (or practically so) of these color-plate reproductions, both males and females. This undoubtedly would be true of the really popular varieties of each breed that is to have a separate Standard.

Admittedly, if what might be called “practical perfection” cannot be secured in these color-plate reproductions, it would be better not to use them, but if this degree of excellence can be secured, as regards color reproduction, then we feel that they ought to be used without

fail. They certainly should create further widespread interest in the breeds and varieties thus advertised and no doubt they would give a far better idea of colors, feather markings, etc., than it is possible to convey by a word description, no matter how carefully the wording is prepared.

IN OUR OPINION IT IS TIME THAT THE AMERICAN POULTRY ASSOCIATION MASTERED THIS COLOR-PLATE PROPOSITION—AND A GOOD PLACE TO BEGIN WILL BE IN THESE SEPARATE BREED STANDARDS. SUCCESSFUL COLOR WORK IN THEM WOULD GREATLY PROMOTE THEIR SALE, AS WE BELIEVE.

THOMAS F. MCGREW MAKES A VALUABLE SUGGESTION FOR THE FORTHCOMING SEPARATE BREED STANDARDS

Five to ten years ago—and for a quarter of a century back of that—Thos. F. McGrew, now of Scranton, Pa., took a generally active part in the promotion of poultry culture throughout English-speaking North America. Some five or six years ago he became identified with the International Correspondence Schools, as head of the department devoted to poultry culture, all branches, and his new duties have kept him busy. Lately we received a welcome letter from Mr. McGrew, from which we quote as follows:

"I have read and re-read your open letter to poultry journal editors, relating to the proposed contents of the Separate Breed Standards soon to be issued.

"You certainly do offer and promise many things that must benefit the poultry business at large. As to illustrations in these breed books, why not add photographic illustrations of day-old chicks of each variety and describe their color? This would be information of value to everyone."

That suggestion is of practical value. We remember well the first time we hatched a bunch of White Plymouth Rock chicks. They were all shades of "white", from "yellowish" to "dark smoke". We wondered what on earth they would prove to be! In reply to our letter of inquiry, the man who sold us the eggs expressed his belief that the "darkest" of these "white" chicks would be the whitest in plumage when they grew to maturity. We are not sure that this proved to be the case, because we did not "check up" carefully, but we are certain that the fact that these chicks came "smoke" colored from the egg shells did not mean that they were not pure-bred, or that they were not of choice quality.

Take White-faced Black Spanish, as another illustration. Twenty-three or

twenty-four years ago we bought two sittings of eggs of this breed and hatched twenty-one chicks from the twenty-six eggs. Every one of them was black and white in color of down, instead of solid black, as we thought they should be. Again, the presence of a liberal amount of white in the color of our chicks was no evidence whatever that they were not true to name and of good quality.

Therefore as chairman of the committee on Separate Breed Standards, we shall recommend to our fellow-members some sort of treatment of this question of the color of day-old chicks which will be of educational value to the buyers and users of these books that are to be devoted to the successful mating and breeding of the most popular varieties of standard fowl. We thank Mr. McGrew for his suggestion and hope that numerous others of equal value may come to hand in the near future. All persons who are interested are invited to help out—and the sooner the better.

—O—

CARL DARE STILL AT IT UNDER FULL SAIL, "OFFICIAL JUDGE" AND ALL

A number of subscribers have sent us latest copies of the new 1916 large-size colored circular (18x23 inches) that is being sent through the United States mails by Carl Dare, in his capacity as manager of "Crescent Poultry Farms," Des Moines, Iowa, which he still adver-



The annual gathering of the "Giants" in the poultry classes which takes place at the Garden each year brings forth the choicest these poultrymen have been able to produce and represents week and months of hard labor and thought in an endeavor to ultimately carry off the highest honors at a show like Madison Square Garden. Mr. D. M. Snyder, Auburn, N. Y., a long time breeder of White Wyandottes was among the successful ones in these classes this season. In the cock class he wedged a good one in to third place with the specimen shown in above illustration. This individual was rather a neat cobby type having plenty of size and excellent head points. He seemed to show wear and tear from previous showing, but despite this fact he lined up well with his closest competitors and no doubt had his tail furnishing been in somewhat better condition, he might have pressed even harder for higher honors. He is a good one of the proper sort and we hope Mr. Snyder will come back again next year with more like him.—A. O. Schilling.

tises as "The world's largest poultry and pigeon plant." In this circular Dare continues to use a reproduction of the judge's certificate granted to him by the American Poultry Association, of which he is still a member. In this circular accompanying the judge's certificate, together with a half-tone likeness of "Judge Carl Dare", the following wording is used:

KEELER'S WHITE WYANDOTTES

The Aristocrats of the White Wyandotte World.

Have again demonstrated their superiority by winning at Chicago, Jan., 1916, in a class of 194 White Wyandottes 1-2-3-4 cockerels 1-2-4 cocks, 1-5 hens, 1-5 pullets, 1-3 young pens and 2-4 old pens. Seven specials including silver cup for grand championship. \$50.00 silver cup for most points on any breed in whole show (3500 birds) also \$25.00 membership cup.

THE WORLD'S GREATEST STRAIN.

EGGS EGGS EGGS EGGS EGGS EGGS EGGS EGGS

The pens that will produce the 1916-1917 winners were mated December 15th and I am in a position to supply you with eggs from the 16 best matings of White Wyandottes in America. These pens contain my Chicago winners also the best birds reared the past three years—sons, daughters, brothers and sisters to these winners—They are bred right and mated right and will produce the winners for America's best shows. Send for my 1916, sixty-four page art catalogue and mating list (5 red stamps appreciated) Eggs \$5.00 per 15, \$9.00 per 30, \$14.00 per 50, \$25.00 per 100. Special matings \$10.00 and \$15.00 per 15.

CHAS. V. KEELER,

R. F. D. No. 17,

WINAMAC, IND.



"THE MAN BEHIND THE HENS"

Manager of

Crescent Poultry Farms**AN OFFICIAL POULTRY JUDGE.****"REPRODUCTION OF AUTHORIZED
JUDGE'S CERTIFICATE."**

"The above is a very fair likeness of our Superintendent and General Manager, and an exact reproduction of the Judge's Certificate or License issued to him by the American Poultry Association. This Association is the foundation of pure bred poultry industry in America and prepares the Standard of Perfection by which all pure bred poultry is judged at the shows and expositions. The Association is very careful of its membership and issues Certificates or Licenses to Judge only to those who are qualified by years of experience and high moral character to fill the position. Every breeder and fancier should belong to this Association and in buying stock, the beginner should patronize only those who are members of the Association for a membership in the American Poultry Association is a guaranty of good faith and a square deal. When any man tells you that he is a poultry judge or poultry expert, just ask him to show you his credentials. A poultry judge who does not belong to the Association is about the same as a preacher who does not belong to church and should receive the same consideration."

On the envelope in which these latest circulars are being mailed, is the same old fake view of "Crescent Poultry Farms", with this wording beneath it: "The World's Largest Pure Bred Poultry and Pigeon Plant."

As before stated in these columns, no such poultry farm exists. Such a poultry farm has never been owned by Carl Dare, nor managed by him, either at Des Moines, or elsewhere.

The same or similar false and misleading statements continue to appear in this highly colored circular that were used by Dare during the season of 1914-1915. Here is an example:

"Bear in mind, this liberal guaranty and remember, also, that my stock has been carefully bred for heavy egg production as well as fancy points, **SO IT IS ADMITTED BY EVERYBODY THAT NOW I HAVE THE BEST LAYING AND BEST PAYING STRAINS TO BE FOUND IN THIS COUNTRY.**"

As regards the "quality" that is claimed and promised by this official A. P. A. judge, note the following quotations from his present circular:

"If you are numbered among my thousands of old customers (meaning Frank Foy's old customers—Editor.) you know me and the quality of my stock. If you have never

bought of me you may want to know who I am and by what right I claim to be a poultry expert.

"I have been in this business an ordinary life time (he bought out Frank Foy in June 1913. Previously he had worked for Foy three months and conducted a small poultry business at Osceola, Iowa, and also did some judging—Editor.) I began with stock that was the best for its day, but would have been very common as compared with my fancy bred-to-lay stock now. I have carefully and painstakingly picked every step of my way and blazed the trail for others to follow in this business.—I was the first man in the middle west (this means Frank Foy—Editor.) to handle a number of varieties and offer the best birds at a price that could be paid by the common people of this country.

"I have shown my stock in EVERY STATE in the Union (not true, by any means—Editor.) and have judged the leading shows in the middle west for a number of years. My customers (meaning Frank Foy's customers—Editor.) are in every town and hamlet on this continent (not true, even of Foy—Editor.) and among them are some of the most successful men and women in the business.

"Think what it means to you in getting started right. Consider the experience I have had and the success of my thousands of customers in all parts of the globe, then ask yourself if any other poultryman can do as much for you. Who else can offer you the experience of thirty years as a guide? (Another sentence and question based, not on Dare's experience, but on that of Frank Foy—Editor.) What other man can offer you

this quality of stock or the guarantee of satisfaction and success?

"I take care of my customers—so I know what every one gets, and what each one



SC WHITE LEGHORN CKRL. HEADING THIRD PEN
BOSTON SHOW JAN. 1916 BRED AND OWNED BY
OWEN FARMS VINEYARDHAVEN, MASS.

OWEN FARMS WHITE LEGHORN

Owen Farms, Vineyard Haven, Mass., won first prize on exhibition pen in S. C. White Leghorn classes at the recent Boston Show, a study of which appeared in the March issue of American Poultry World. This firm was represented by three pens in competition winning 1-3-6 prizes. The above male represents the cockerel shown at the head of third prize pen and according to Mr. Delano's opinion, he was probably the choicest male among them. Although the females in the third prize pen were hardly as evenly matched in type as the first prize pen, yet the male at the head of this pen as shown above was indeed a very attractive individual. He had a wealth of saddle and tail furnishing that is uncommon and in type and conformation was full of curves blending into a very attractive symmetrical form. Owen Farms Leghorns have made a remarkable record for themselves until now they are considered one of the choicest flocks in existence today.—A. O. Schilling.

**U. R. Fishel's White Plymouth Rocks**

For twenty odd years have been acknowledged the best in the variety. My winnings in all sections of America, at all the largest state and International Expositions and the leading poultry exhibitions are without an equal. I am in position to furnish you

EGGS FOR HATCHING

From the best mated yards ever mated in the world. The Fishel White Plymouth Rocks have been bred in line so that they produce better quality each season. The egg yield is wonderful—the standard requirements are without a superior. Our mated yard eggs are

SOLD ON A GUARANTEE WORTH SOMETHING

to you. Don't place your order until you read a copy of my 1916 mating list. It is FREE. Selected Breeders, Suburban Flocks, Baby Chicks. In fact everything you need in White Plymouth Rocks, I can supply you. No one can give you the Blood Lines, Quality and Vitality I can give you. 120 acres devoted to the one breed. Special price list free.

EGGS FOR HATCHING—\$3.00 to \$25.00 per 15.

SALE FOWL EGGS—\$10.00 per 100—\$6 per 50.

BABY CHICKS—\$8.00 per 25.

\$15 per 50—\$25.00 per 100

MAY I HAVE YOUR ORDER?

U. R. FISHEL,

Box B,

HOPE, INDIANA.

needs to make success certain. * * * I have the quality that pays and you get the benefit of my advice and experience along with the best quality of stock without extra charge.

"ANY MAN WHO KEEPS CHICKENS AT ALL, CAN AFFORD TO PAY ME SEVERAL TIMES MY REGULAR PRICE FOR STOCK OR EGGS FOR HATCHING IN ORDER TO GET STOCK OF THIS QUALITY AND YOU CANNOT BUY BETTER STOCK ANY WHERE, NO MATTER WHAT PRICE YOU PAY."

Immediately below these quotations in the above described circular is a list of the sixty different breeds and varieties of chickens, turkeys, ducks and geese that Dare offers for sale. Just above the list he says.

"We have this year the finest flocks we have ever owned from which to make selections for our customers and can offer the very best quality of heavy laying stock or eggs for hatching from the best matings as follows."

Eggs, as a rule, are quoted at these prices: 15 eggs, \$1.50; 30 eggs, \$3.00; 50 eggs, \$4.50; 100 eggs, \$7.00. Occasionally \$2.00 per 15 is asked in the case of rare varieties, while in a few cases \$2.50 is the price for White Cornish eggs, Silver Campine eggs, Sicilian Buttercup eggs, etc.

The prices asked for breeding stock of "the very best quality", etc. are \$3.00 for single male birds, as a rule; \$5.00 for one male and one female; \$7.00 for a male and two females; \$11.00 for one male and four females, and \$22.00 for ten females and a male. These prices of course apply to chickens, not to turkeys, ducks and geese.

Last season A. P. W. told of the sources whence Dare secures large numbers of the fowls and hatching eggs he uses in filling orders secured by the circulation of such statements as here are quoted. As a rule these fowls are bought from farm flocks or are inferior specimens picked up at low prices from specialty breeders, representing birds in numerous cases that they would not use themselves for breeding purposes. Generally speaking, Dare does not own the "fine flocks" and "best matings" to which

he refers, but in numerous instances he relies on getting his fowls and hatching eggs where he can and of whom he can, picking them up after orders come to hand.

Sooner or later the American Poultry Association, either of its own action or with the help of the United States postal authorities, will cause such men as Carl Dare to correct their fraudulent methods of securing money through the mails or will put them out of the poultry business entirely. The sooner this is done the better it will be for specialty breeders who go to the necessary expense to own and develop strains of fowls that possess the power to transmit their valuable qualities from generation to generation in profitable percentages. These huckster-dealers today are securing each season literally hundreds of thousands of dollars worth of orders for fowls, eggs for hatching and day-old-chicks that by rights ought to go to specialty breeders who are in a position to give value received and who make a conscientious effort to do so.

FRANK FOY WINS OUT IN THE SUIT BROUGHT AGAINST HIM BY "JUDGE" CARL DARE

In June, 1913, a huckster-dealer named Frank Foy, for twelve to fifteen years the proprietor of what was known as Crescent Poultry Farms, supposed to be located at Des Moines, Iowa, sold out to Carl Dare, a lawyer and poultry judge who had been mayor of Osceola, Iowa, a town of about twenty-five hundred inhabitants.

Evidently Dare believed that Foy was selling him his entire "mail order" poultry business. Foy owned a nondescript poultry plant near Des Moines, Iowa, but Dare did not pretend to buy this piece of land, nor the twelve to fifteen ramshackled buildings thereon. A year or so later he did buy, in the name of his wife, the former residence of Foy, located at

the corner of Fifteenth and Crocker Streets, Des Moines, Iowa. It was here that Foy conducted his extensive mail order business, selling each season thousands of head of fowl and tens of thousands of eggs for hatching, gathered from all points of the compass and picked up from Tom, Dick and Harry, in many cases at little better than current market prices for table poultry and cooking purposes.

From Des Moines, Foy moved to Clinton, Iowa, where he started in business again on much the old plan, except that here he erected several poultry buildings of modern type and claimed that he was going to improve his business methods as regards sources of stock, specializing in certain popular varieties, etc., etc. He soon came out with letterheads, catalogues, etc., that closely resembled in size, style, striking colors, etc., the letterheads and printed matter formerly used by him and he named his new plant Frank Foy Poultry Farm. Last season, also this season, Foy and Dare have been advertising extensively in leading periodicals of the country, their advertisements almost duplicating each other, as the following examples will show:

MONEY IN POULTRY Start small. Grow BIG. Get winter eggs. Keep healthy fowls. Save your chicks. Foy's big book tells how. Describes largest poultry and pigeon plant. Shows fowls in natural colors, how to feed for eggs, how to select best layers. Mailed Free. F. FOY, Inc., Box 30, Des Moines, Iowa



FOY'S BIG BOOK FREE
POULTRY AND SQUABS FOR PROFIT. An encyclopedia of poultry information. Written by a man who knows. Leading varieties of poultry and pigeons in natural colors. Low prices on fowls, eggs and incubators. Frank Foy Poultry Farm, Box 15, Clinton, Iowa

Dare complained early of Foy's conduct and more than a year ago he started suit to have him stopped. He asked damages in the sum of \$15,000 and tried to have the contract between them rewritten or "re-formed", to use Foy's expressive word. Twice or more Foy was ready to try the case, but the dates went by with nothing doing. In January of

FIRST PRIZE COCK at Madison Square Garden 1916



Was a Regal White Wyandotte hatched from a setting of eggs sold to Mr. Geo. H. Ward, of Manchester, Conn. Here is his letter:

Dear Sir:

No doubt you will be pleased to learn that I won first cock bird at the Madison Square Garden Show and that he was hatched from a setting of Regal Strain eggs that I purchased of you in the spring of 1914, which adds one more to my list of winnings since I began breeding your strain of Wyandottes.

Thanking you for honorable dealings in the past and wishing you future success, I remain

Yours very truly,

GEO. H. WARD.

I have on record a number of instances where eggs sold by me hatched New York and Boston winners but most of them I am not at liberty to mention. This goes to show that my customers are treated "on the square" and have an equal chance with myself to produce Champions. My 2000 early hatched chicks are a fine thrifty lot but it only goes to show that they are bred from strong, vigorous parents. If you are not satisfied with the results you are getting why not start all over again with pure Regal Strain? I guarantee a satisfactory hatch no matter where in America they are sent.

EXHIBITION MATINGS.

Pens 1 to 20 (as they run) \$5 per 15, \$9 per 30, \$12 per 45, \$24 per 100. Eggs from special matings \$10 per 15, \$18 per 30, \$25 per 45, \$50 per 100.

RECORD LAYING PENS (DORCAS LINE)

Pens 21 to 30 are headed by males bred from females with high records. Some of these males also have exhibition records. The females in the ten pens are composed of yearlings with trap-nest records from 180 to 224 and pullets of the same breeding. From these pens, eggs are \$5 per 15, \$15 per 50, \$27 per 100, \$50 per 200. Utility matings of vigorous surplus stock \$5 per 50, \$9 per 100, \$17 per 200, \$25 per 300, \$75 per 1000.

500 COCKS, HENS, COCKERELS AND PULLETS FOR SALE.

SPECIAL—50 big, vigorous stay-white Dorcas cockerels \$10, \$15, \$20 and \$25 each. Dorcas pullets \$3, \$4 and \$5 each. Utility cockerels \$3 and \$5 each.

FREE—20 page illustrated catalogue and mating list. It gives full description of my matings for 1916.

Send one dime for the Regal White Wyandotte Book. The information it contains will be worth dollars to you.

JOHN S. MARTIN,

Box W,

PORT DOVER, CANADA



"Wilburtha Rex"
1st Cockerel—Madison Square Garden

Wilburtha Service

Strengthen your flock in the weak places. Tell us your needs. We'll be glad to write you fully. Our experience as successful breeders is at your service.

Columbian Plymouth Rocks

Our strain is of exceptional quality. The males heading our pens are all leading winners at the big shows of this and last year. Many of the females have been in the ribbons as well.

Baby Chicks and Hatching Eggs from these Superb Pens

Mating Lists and Catalog—Free

Wilburtha
POULTRY FARMS

Chas. J. Fisk, Owner M. L. Chapman, Mgr.
Box F,
Trenton Junction, New Jersey

Satisfaction Guaranteed

We guarantee 85% fertility for hatching eggs after March 1st. We ship baby chicks in the best approved boxes and guarantee them to arrive safely and in full number.

S. C. Rhode Island Reds

Wilburtha Reds are wonderful for type, and sound in color. Rich, deep red with splendid black markings. An infusion of Wilburtha blood will do wonders for your flock.

Baby Chicks and Hatching Eggs from Carefully Selected Pens

"Prince Reddy"
1st Prize Pen Cock—Atlanta



this year, however, the issue was taken into court and Foy "won out", so he writes under date March 13. In a letter of that date to W. F. Fry, an associate editor of the Reliable Poultry Journal, Quincy, Ill., Mr. Foy said:

"I suppose of course that you have heard the particulars about Dare, being over in January, and suing me, but for fear you did not get the right 'dope' on it—I will explain it to you a little.

"He sued me to re-form the contract that I made with him. He wanted it re-formed so that it would keep me out of business for five years. He also wanted \$15,000 damages.

"He came here with a large number of witnesses from Des Moines, including Berry of Clarinda and Jones of Des Moines. Berry came to my place about two weeks before I moved to Clinton and we went over to see Jones (meaning H. M. Jones, proprietor of Graceland Poultry Farms, another huckster outfit, also located at or near Des Moines—Editor). They swore that I told them that I had signed a contract not to go into business for five years. That was after I had made arrangements to buy the place here. Now, I never told them anything of the kind.

"Jones is the mau that you caught 'red handed' at the State Fair showing borrowed birds and Berry is the man that always came to my place when he came to Des Moines and made his headquarters there. When the State Fair was on he would bring his family and stay at my house.

"Dare also spent several days here among stenographers and help that I had employed the year before. Some of old help in Des Moines were brought here also.

"It was quite a long trial and I guess expensive. There were no arguments in the case, as it was not a jury trial. Each side submitted briefs. It took about forty days before Judge Barker decided the case. The decision was that there were no grounds for re-forming the contract and no damages were allowed. I could not ask for anything more."

Score another victory for the "shrewd" Frank Foy, in competition with the "bold" Carl Dare, but meanwhile who is to protect the standard-bred poultry industry of English-speaking North America against the manipulations of both these men and of others like them? So far as Frank Foy is conducting his poultry business at Clinton on a legitimate basis, we wish him well, but we feel that even in his case, on the new basis, the American Poultry Association ought to investigate matters and make a detailed report, with or without recommendations.

Again we say: it is the PLAIN DUTY of the American Poultry Association to defend and preserve its OWN CREATION—the great national industry to which it is devoted, as per its avowed objects and oft-repeated claims. Every earnest and honest member of the organization should insist that this shall be done.

DOWN-TO-DATE WISDOM FROM THE SAGE OF NATICK

As many readers of A. P. W. are aware, Isaac K. Felch, poultry breeder, judge and author of Natick, Mass., has been called the Sage of Natick, also the Nestor of the standard-bred poultry business of the new world. January 17th of this year, Mr. Felch celebrated his eighty-second birthday. As far back as 1870 and 1871, he not only was advocating standard-bred poultry (there was no Standard of Perfection in those days), but was a contributor to the first poultry journal ever published in this country, namely, "The Poultry Bulletin", issued in New York City.

Lately Mr. Felch wrote us an interesting letter, which we are pleased to publish in full as follows:



"Peter, The Great"
1st Cock—Grand Central Palace

April Hatches

Chicks hatched this month make the best fall and winter layers. You want strong, vigorous livable Baby Chicks that will mature quickly. We have them.

S. C. White Leghorns

They live and lay; they win and pay. America's greatest flock celebrated as show birds. Noted the world over for vigor, vitality and wonderful egg production.

Baby Chicks and Hatching Eggs from Pens Headed by "Peter The Great" and Other Prize Winners

Mating List and Catalog—Free

Wilburtha
POULTRY FARMS

Chas. J. Fisk, Owner M. L. Chapman, Mgr.
Box F,
Trenton Junction, New Jersey

Laying the Foundation

Buy the very best you can afford. Remember you are investing for future profits. If you are starting now, it is especially important that you lay a good strong foundation.

Columbian Wyandottes

Our birds made a marvelous show record during the past season. They are all line bred and strong in both shape and color.

Baby Chicks and Hatching Eggs from Pens Headed by "King Ermine" and Other Magnificent Males

"King Ermine"
1st Prize Cock—Madison Square Garden
Exhibited at Many Shows—Never Beaten



"Natick, Mass., January 17, 1916.

"Friend Curtis:

"I have celebrated my eighty-second birthday today by shipping fifteen thoroughbred cockerels. I hope it may be the dawn of a new revival of country-wide interest in the protection of poultry culture. The last three or four dull years will, only awaken a renewed energy on the part of the REAL poultrymen.

"The evil effects of selling baby chicks and what they call utility stock for thoroughbred, will soon pass. The results will be like an experience I once had, as follows:

"A Mr. Pitts came to me and bought a \$12 trio of Light Brahmas. In three weeks he came back, saying he had sold them and then he paid me \$18 for a trio. Five weeks later he came back again, saying 'I have sold them; now I want some real Brahmas'. He then paid me \$56 for a cock and three hens.

"The next January I paid him \$412.50 for their get, which I sold for \$825, doing so on an agreement with him to advertise the birds and sell them for half the money I got. This is a true little story, and I am looking for a similar effect upon the calling of poultry culture when this cheap craze is over. Strictly first-class stock cannot be sold at cull prices. Keep up your good work.

"Yours truly, "I. K. FELCH."

Knowledge is power—and protection! A large majority of men and women would have been satisfied with that \$12.00 trio of Light Brahmas. A smaller number, but still a truly large number of persons, would have been delighted with the \$18 trio and would have sent testimonials, telling of their wonderful quality—not knowing any better. But there must have been a good deal of "real difference" between that \$12 trio and the four birds that Mr. Felch, within two months' time, sold to the same man "on sight" for \$56.

Think it over dear reader and then keep on your thinking cap. Keep it on ALL THE TIME and keep it at work—it is your best chance for self-protection, generally speaking. Among the jewels of the head, judgment is the white diamond. Often it is inherited, but it can be much improved in the school of experience. Common sense is its hand maiden, and putting two and two together is its daily recreation. Learn the ordinary standards of measurement and apply them faithfully in every test of value. Remember that it takes sixteen ounces to make a pound, not a blast of "hot air". It still will require twelve inches to make a foot, no matter how much "gilt" is employed or how many colors are lavished on catalogue or circular.

To learn all that there is to know about standard-bred poultry and the production thereof, is a life work. Even then you often will have to find refuge in such remarks as "I think so," "perhaps" and "you may be right." Nevertheless, REAL KNOWLEDGE, based on common sense and directed by practical judgment, is your business salvation—represents the upward climb, day by day and year after year, that leads to success and satisfaction. Without this knowledge, inherited and acquired, each of us must continue to meet disappointment and suffer repeated losses. Knowledge is not only "power", but accepting the word for what it is, it means, as a rule individual success in our chosen fields of effort, small or large, near or far.

SHARPE BUTTERFIELD, POULTRY JUDGE AND EXPERT, FINISHED LIFE'S WORK, JANUARY 31st

Word reached us too late for March A. P. W. that Sharpe Butterfield, for many years a resident of Windsor, Can-

ada, died at Passaic, N. J., on Monday, January 31st, at the home of his sister, with whom he had lived the last few years.

The passing of Sharpe Butterfield, widely known for nearly half a century as a loyal friend and consistent advocate of standard-bred fowl, brings to mind some of our earliest experiences in the poultry field. Editor of A. P. W. joined the American Poultry Association in Kansas City, December 1894, and it was there that we became acquainted with Sharpe Butterfield, Wm. McNeil and Geo. McCormack, three as staunch and capable friends as standard-bred fowl ever had in the new world. To date Canada has not produced three more competent men in this popular field of endeavor.

From the first we took a strong liking to Mr. Butterfield, and we are glad to say that this feeling seemed to be cordially reciprocated. After that we met him repeatedly at poultry shows from the Missouri River to the Atlantic

Coast, and we do not know of a poultry judge, living or dead, who tried harder than he to instruct and encourage the amateur, the beginner and the mere spectator. Naturally of a kindly disposition, he radiated good nature and always seemed glad to extend a helping hand in the way of facts or advice devoted to the upbuilding and further extension of poultry culture.

In this connection we are glad to quote the following tribute from the pen of Robert H. Essex, editor of the Canadian Poultry Journal, Hamilton, Ont., from whom we secured the photograph used in making the accompanying excellent reproduction of Judge Butterfield's genial features:

"Sharp Butterfield is dead!

"Thousands of young fanciers have received from him hints on mating that have been as valuable as if a whole book had been written on the subject. And there are numerous experienced exhibitors likewise who know that he could breed as expertly as he could judge.

"In all our years' mingling with fanciers and judges throughout America, we have

TAYLOR'S COLUMBIAN PLYMOUTH ROCKS

Win from coast to coast at THE PANAMA PACIFIC EXPOSITION, MADISON SQUARE GARDEN, and THE GREATER CHICAGO SHOW. They won 8 out of a possible 12 first prizes competed for. I am booking orders for eggs from the best mated pens in the world. MATING LIST FREE.

JAS. H. TAYLOR, R. D. 5, WOODSTOCK, ILL.

EGGS EGGS EGGS

THAT HATCH BIG HUSKY CHICKS—EVERY EGG GUARANTEED FERTILE REGARDLESS OF DISTANCE SHIPPED.

McCONNELL'S S. C. B. MINORCAS

America's Greatest Trap-Nested Egg Producing and Exhibition Strain, Won 16 International Ribbons and All Specials at World's Fair, San Francisco.

The largest and strongest MINORCA class of the season. Over 100 shows were won with my strain.

My 40 pens mated for 1916 trade were never equalled by any other breeder in America. For quality, size and number of eggs produced, no other fowl can approach them. If interested in these wonderful egg producing MINORCAS, SEND FOR MATING LIST, IT IS FREE. Breeding stock on green range every day in the year. Breed For Eggs My Hobby.

J. V. McConnell, Box 27 G, Garden Grove, Calif., U. S. A.

AT THE GREAT PANAMA - PACIFIC INTERNATIONAL EXPOSITION, SAN FRANCISCO, November 18-25, 1915 WE WON EVERY FIRST PRIZE

FIRST-2-4 and 7 cocks. FIRST-2-3 and 4 cockerels. FIRST-2 and 4 hens. FIRST and 3 pullets. FIRST and 3 pens. Champion Male. Champion Female. All specials. Judge, Irving Rice of New York.

SINGLE COMB WHITE LEGHORNS

Our birds have been line bred for 23 years. Are bred and trapnested for high egg production. Their size, vigor and type are unsurpassed.

EXHIBITION, BREEDING and FOUNDATION STOCK OUR SPECIALTY.

Eggs for hatching in season. All stock carefully selected and cooped. EGGS PACKED AND SHIPPED SAFELY ANY DISTANCE. WRITE FOR FREE CATALOGUE AND MATING LIST

RANCHO DEL MARTINO
DOWNEY, Mrs. E. B. Martin. CALIFORNIA

never heard his ability questioned. We have never once heard it claimed that there existed a better poultry judge than Sharpe Butterfield.

"That long-time co-worker with him—Judge Jarvis, said:

"It was 42 years ago that I first met Mr. Butterfield. I was exhibiting at Detroit, where I won the special for the largest exhibit from Canada. Mr. Wright was president of the show; Mr. Butterfield was judging some of the varieties; I was judging others. Sharpe was an old-time swine breeder, exhibitor and judge. He had judged previously in England. The first year he judged at Guelph was the first show in Canada where the score-card was used. The show was held in the old rink. I believe that was Mr. Butterfield's first judging show in Canada. Twelve years after that I met him in company with B. N. Pearce and I. K. Felch. They formed a noted trio. It was about 30 years ago that Mr. Butterfield gave his sole attention to judging. Ottawa, Ontario, was his last show."

"Mr. George W. Freeman, of Windsor, Ontario, another old friend of Mr. Butterfield, writes us:

"Mr. Butterfield died at Passaic, N. J., where about three years ago he went to live with his sister. He died on Monday the 31st of January. He did his last judging at Ottawa,

"The good old judges are rapidly passing away. Let us do the best we can for those who are still with us; and if we can follow Sharpe Butterfield's worthy example, and smile upon everybody we meet; it will assist us in remembering the twinkle that used to shine in his eyes, and enable us to bear with greater fortitude and a better spirit the little difficulties we encounter in our daily lives. If Sharpe Butterfield can but transmit his happy smile to some of us, he will have left behind him more than mere riches."

ADDRESSED TO THE EARNEST AND LOYAL FRIENDS OF POULTRY CULTURE

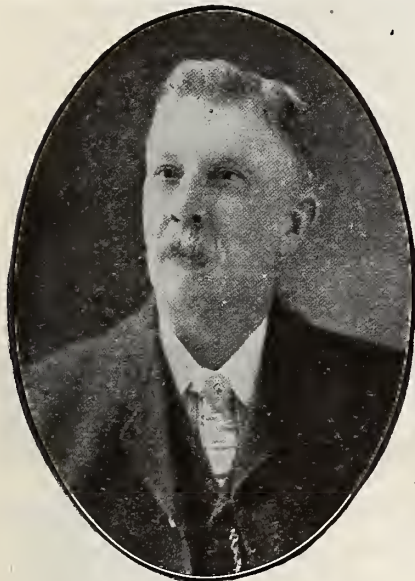
If you, dear reader, wish to include yourself in the above-described class, then we respectfully claim that now, this spring, is the right and proper time for you to join the American Poultry Association and thus not only give to the organization your valued support, but also to become personally identified with its good work.

For ten years and more there has been a growing demand for the American Poultry Association to take a strong and well-defined stand in favor of honest methods and square dealing in the poultry industry, especially on the part of its members. This last fall, at the San Francisco convention, the association took that position, and now it remains for the interested public, members and non-members, to show its appreciation and to indicate plainly its approval.

At San Francisco, on request of the retiring president, a resolution was introduced and adopted which provides a means for checking and abolishing false statements used in poultry advertisements and sales literature. By this resolution

a committee to consist of the president, vice-president and secretary of the organization, was given authority to exercise the full restraining power of the organization privately and publicly in cases of this kind, and work along that line is now being carried on. This fact is known to us. It was time that such a step should be taken and real benefit will come of it, both to the association and to the industry.

Also at the San Francisco convention, on request of the secretary, a resolution was adopted which provides for the endorsement by the association of all members whose names are on the roll in good standing, to the effect that the association believes these members to be honest in their methods and fair in their treatment of customers in all poultry transactions. This resolution likewise is in effect. Mr. Earl Hemenway, South Haven,



SHARPE BUTTERFIELD

Ontario. It was, I think, four or five years ago. On his way home he had to be taken off the train at Toronto and was taken to the hospital. It was a case of collapse from overwork. Shortly after that, while talking to me at his own home, he had a slight stroke of paralysis, which seems to have left him indifferent to everything in which he had formerly taken such a great interest. A little later he sold his property here and went to Passaic to live with his sister, where he died.

"He learned the trade of wheelwright in England where he was born. When he came to this country he secured employment with a stock raiser and became such an expert at fitting hogs for the shows that whoever he worked for always secured the lion's share of the prizes. He formed a partnership with Col. Rankin and started a stock farm on Bois Blanc Island, at the mouth of the Detroit river, opposite Amherstburg. They subsequently went into the breeding of Shetland ponies. Later we find him located at Sandwich in partnership with the late William Wright, of Detroit, engaged in the poultry business. They made a killing at the World's Fair, Philadelphia (the Centennial). It is safe to say that he became the most noted, most popular, judge in America."

NIAGRADOT

Berlin, Ont., Jan. 7th, 1915.

Dear Mr. Marshall,

Am ready for eggs now. Can by past experience expect winners for early fall shows. Won 1-2 cock, 1-2-3 hen, 1-2 cockerels, 1-2-3-4 pullets here. Best cock in show and many specials.

A. S. UTTLEY.

BUY BIRDS OR EGGS AND DO LIKEWISE

Catalogue free. Eggs, exhibition \$5.00, Utility \$2.00.

MARSHALL & MARSHALL

Box W. Niagara Falls, Canada.

WHITE WYANDOTTES

HAWKINS BARRED ROCKS

CHAMPIONS EAST and WEST

No other strain of Barred Rocks in America has ever made such sweeping victories at the World's Greatest Shows.

Boston, New York, Chicago and San Francisco

They won the sweepstakes prizes for Grand Champion Male at Boston, 1915, and for Grand Champion Female at the World's Fair, San Francisco, 1915, also Grand Champion Male and Female at the great Chicago Coliseum Show, 1913-14. These prizes have been won in competition with the world's best breeders and no one can sell you more quality.

High-class breeding birds at Honest prices.

EGGS from the world's best matings, 1 setting \$10, 2 settings \$18, 3 settings \$25, 100 eggs \$50. Big Catalogue of the Champions Free.

A. C. Hawkins, Lock Box 30, Lancaster, Mass.

SUSSEX

WORLD'S CHAMPIONS

CAMPINES

At the Greatest Poultry Show Ever Held—Panama Pacific International Poultry Show in competition with the world's best we won 9 firsts out of a possible 18, 7 seconds, 6 thirds, 6 fourths and 2 fifths. Each one of our 44 birds entered won a ribbon. A most remarkable and enviable record.

At the Cleveland Poultry Breeders Association Show January 3 to 8, 1916. We won 12 firsts out of a possible 16, 7 seconds, 6 thirds, 6 fourths and 5 fifths. A few choice pens, trios, and single birds for sale at reasonable prices. We have our pens mated for the egg trade. Write us for mating list.

GENSEMER BROS.

Box W,

CRESTON, OHIO.

Mich., chairman of the Welfare, Grievance and Appeals Committee, is now handling cases of this kind with fidelity and to the advantage of the standard-bred industry.

The two above described resolutions, if faithfully followed up, will prove to be truly helpful to the best interests of poultry culture. That they will be faithfully carried out, we confidently believe. It is our firm conviction that not less than 90 per cent. of the men and women actively engaged in the standard-bred poultry business **STRONGLY DESIRE** that these resolutions, within reasonable limits, shall be enforced. Many letters to this effect have been received by us during the last three or four months.

But now is the time when the officers of the American Poultry Association ought to receive convincing proof of the genuine, solid and widespread popularity of the advanced position the association took at San Francisco last November and of the progressive work these officers now have under way. Rest assured, dear reader, that the crooks, the semi-crooks and the hangers-on will be active enough. The virtue of activity they possess! They deserve credit for that, to say the least. On the other hand, the men

and women who strongly favor reformatory work are liable to leave this duty to others, while they welcome the benefits.

That really is not a fair thing to do. In the present case the officers of the American Poultry Association need your encouragement in two ways: If you are now a member, why not write a letter of approval and encouragement to President Richards or to Secretary Campbell? A postal card will do. This, however, is not of much real importance. The thing for you to do, as a member, as we believe, is to "speak your mind", on any and all occasions, whenever the question comes up, thus letting your friends and associates in the poultry business **KNOW** just where you stand, as regards honest methods and square dealing.

If you are not now a member of the A. P. A., but are **TRULY** interested in the welfare of poultry culture, especially the standard-bred branch of our great industry, then A. P. W. asks you to join the American Poultry Association—and to do it **NOW**, this spring, while you are busy with your poultry and your mind is on the advantages of the splendid work a great organization **CAN DO** in behalf of the poultry industry if it has the loyal and earnest support of ten to

twenty thousand members scattered throughout the United States and Canada.

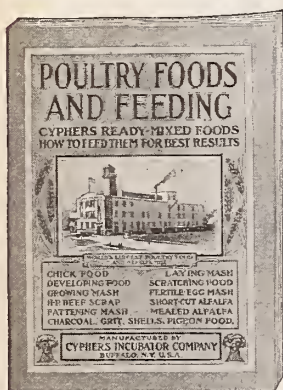
On page 468 of this issue of A. P. W., is a picture of E. E. Richards, president of the American Poultry Association, also quotations from a speech he made at the San Francisco convention, wherein he outlined in an emphatic manner the progressive and aggressive policies he believes in and stands for, as chief executive of the organization. In this position and in the good work he is to do, President Richards deserves the loyal support and hearty co-operation of every man and woman in English-speaking North America who is making all or part or his or her living in the production of poultry and eggs.

The time to join this association is now. Good times are again at hand in the poultry business, meaning particularly the standard-bred branch of it. If it had not been for the American Poultry Association, this industry would not have reached the position it now occupies, nor could existing prices possibly have been received for choice fowls, eggs for hatching and day-old chicks if this organization, or some other one like it, had not carried on the preliminary constructive

The Chicks That Live Make the Profits

GIVE THE "CYPHERS WAY" A FAIR TRIAL

NOW is the time, in justice to yourself, to put Cyphers Foods to a *test*. Your growing chicks are dependent upon you. They need the *right food*—fed in the *right way*. The "Cyphers Way"—for 20 years—has been proven correct in reducing the enormous *death loss* among chicks, due largely to incorrect feeding.



Send Today for This 32-Page Free Book

Tells in detail how to feed chicks, beginning with first seven days, then every week up to fifteenth. Gives Deep-Litter plan of feeding. Tells how to produce Squab Broilers, Regular Broilers, Fryers, Roasters, Capons; also how to feed the Layers and Breeders. Latest methods.

A Life Saver for Little Chicks

Cyphers Incubator Company was a *pioneer* in the manufacture of Properly-balanced, Granulated, Dry-grain Chick Food. **TODAY** many thousands of poultry growers use **CYPHERS CHICK FOOD** exclusively—its value in *saving the chicks* having been proven by experience. It is a *complete food*—containing every element needed for *chick health* and *quick growth*. In your own interest, we ask you to *test our claims*.

PLEASE REMEMBER that the use of wet mash, sour food and guess-work, coarse-grain or "by-product" mixtures possessing little food value, always invites *bowel trouble*, *leg weakness*, *stunted growth* and *heavy death loss*. Millions of chicks thus die from incorrect feeding.

Cyphers Poultry Foods

Chick Food Growing Mash Fattening Mash Laying Mash
Developing Food Scratching Food Fertile-Egg Mash Meat Mash

AT OUR CHICAGO FOOD MILL—the largest in the world—we make Poultry Foods *exclusively*. We have no "by-products" to work off into Poultry Foods—we purchase definite grains for specific purposes. We use only *sound, sweet, wholesome grains*—correctly proportioned, properly milled and uniformly mixed. Each of our Foods has long been tested on our \$85,000, 50-Acre Experimental and Demonstration Poultry Farm.

Write us **TODAY** for Current Prices and name of Dealer nearest you handling Cyphers Foods; also give us name of your regular Dealer.

CYPHERS INCUBATOR CO., Dept. 742, Home Offices, **Buffalo, N. Y.**
New York City Boston Chicago Kansas City Dallas Oakland



Most Popular Food for Chicks. 100-lb. Bag will Feed 100 Newly-Hatched Chicks 4 Weeks, or 50 Chicks 6 to 7 Weeks.



Properly Balanced and Easily Digested. Makes Chicks Grow. Write for Our Latest Prices.



The Silver Campine, Claribel, 1st pullet at the Coliseum, is no doubt the gem production of the Green Sheen Strain and that, too, notwithstanding the fact that young males bred by Mr. Hering likewise took the leading honors at this show. There is truly gem-like beauty in the fine clear tracing of snow white that regularly runs in well-matched bands across the glossy back of Claribel's coat—a coat that fits her almost faultless Campine form. Her head points, level body and smart carriage surely please the Campiner's eye.

work for more than forty years. It is little enough for each of us to put up \$10 and become a life member. The point is, DO IT NOW. For application blanks address S. T. Campbell, secretary of the American Poultry Association, Mansfield, Ohio.

SUBSCRIBERS TO A. P. W. CAN HAVE THEIR APPLICATION BLANKS ENDORSED BY SENDING THEM TO THE EDITOR OF THIS MAGAZINE.

CANADIAN POULTRYMAN WHO KNOWS HIS BUSINESS AND IS ATTENDING TO IT

Our frontispiece this month shows photographic reproductions of nine record layers produced by John S. Martin, the well-known White Wyandotte specialist of Port Dover, Ontario, Canada. These birds represent the Dorcas line or strain, as developed by Mr. Martin and the egg records speak for themselves.

As down-to-date proof that Mr. Mar-

tin's White Wyandottes do remarkable work in the nest, not only for him but also for his customers, we are pleased to publish the following affidavit, as sent to us by Mr. Martin under date March 8th:

Olustee, Okla., Dec. 30, 1915.

"This is to certify that I hatched a pullet in May 1914 from John S. Martin's Regal White Wyandotte stock and that on December 23, 1914, she laid her first egg. On Dec. 24th, 1915 she finished her first year as a layer, having laid during that time a total of 287 eggs. She has had no special care, having had the run of the place with a few other hens. This pullet weighs at this time 7½ pounds and is laying every day.

E. R. PARKER,

Subscribed and sworn to before me this 30th day of Dec. 1915.

TOM MOORE,
Notary Public."

Probably there is a mistake in the above-mentioned dates. We should judge that this hen laid her first egg Dec. 24, 1914 and finished the year Dec. 23, 1915. Otherwise she lapped over and got the benefit of two extra days. In any event, this is a wonderful egg yield and comes very close to establishing a new world's record for a White Wyandotte.

Mr. Martin is a poultryman who has

had the good judgment to combine "utility and beauty" in building up his strains. It is his ambition to produce as good as the best—or better—in exhibi-



1st Cock, New York State Fair, 1914

1st Pullet, Grand Central Palace, N. Y., 1914

"They Were Bred at Rancocas"

S. C. WHITE LEGHORNS

Hatching Eggs

100% Fertility Guaranteed

Eggs from husky, vigorous yearlings or older hens, mated with cockerels full of vitality. All bred for egg production, right on our own farm. All eggs shipped promptly.

Day-Old Chicks--Delivery Guaranteed

Every chick hatched from our own eggs, and delivery at your express station guaranteed. Chicks, the husky kind, that thrive. Get started right. The right kind are worth more.



Hatching Eggs and Day-Old Chicks from the "Million Egg Farm"

Write for free booklet, giving prices, description and other information

Winings on S. C. White Leghorns for years at shows East and West. Here are some of our latest—1st old pen, Chicago Coliseum, 1915. 1st pen, Madison Square, Febr., 1915. 4 firsts, Buffalo, 1915.

WHITE PLYMOUTH ROCKS

Have been winning at Madison Square and Boston, for 10 years. Among our recent winnings are—1st pen, 1st hen, Madison Square, 1916. All firsts, New York State Fair, 1915.

The Rancocas strain of White Rocks is to-day one of the oldest and stands among the great leading strains. It has for years produced winners at the big shows. This strain has been carefully bred along well-defined lines for fifteen years by the same breeder.

Send for mating list, with description of matings, winners, prices of eggs. We can always furnish you with birds to win, or stock and eggs that will produce winners.



1st Cockerel, Madison Square Garden, 1913

1st Hen, Madison Square Garden, 1913

Rancocas Poultry Farms,
Box 610, Browns Mills, N.J.

SLADE'S BUFF ORPINGTONS

ORDER YOUR HATCHING EGGS NOW

April chicks hatched from my Orpingtons will make early fall layers and will be ready to win your winter shows. Eggs from some of the grandest matings in all America, \$5.00 per 15, Utility eggs \$9.00 per 100. Orders filled promptly and a good hatch guaranteed. Remember, my birds have been winners at Buffalo, N. Y., State Fair and other large shows.

H. W. SLADE,

NEW CIRCULAR FREE.

Box W, NEWARK, NEW YORK

FOUR MOODS OF THE HANDSOME DOCTOR.



In the February 5th, 1916, issue of the American Stock-Keeper of Boston, Mass., was published an Open Letter by the "handsome" editor of a well-known and popular poultry paper of large circulation. No doubt quite a number of our subscribers read that insincere and abusive letter. It was like other things the same author has written lately. In it the author criticized the editor of A. P. W. in about "57" ways regarding his long service in behalf of the American Poultry Association and his present efforts to "clean up" some of the things in the poultry field that need the attention of the American Poultry Association or the United States postal authorities. In his Open Letter the said "handsome" editor appeared to defend poultry huckstering and attacked the American Poultry Association as regards certain advertising done by it and its efforts to sell large numbers of the Standard of Perfection. On reading said Open Letter the staff artist of A. P. W. was prompted to prepare first one and then another of this series of illustrations until the page was filled.—William C. Denny, Associate editor.

tion quality, as per the Standard requirements, and also to have these "good looking" fowl prove to be "good performers" as quick-growers and prolific layers. That he is accomplishing these highly desirable results, is proved by such evidence as is presented in this issue of American Poultry World.

There is every good reason why the sensible fancier-breeder should wish to secure a prolific egg yield from his favorites and to establish this power of egg



White Wyandotte cockerel referred to in Mr. Browne's letter to editor regarding illustrated breed standards. (See page 471). This male was bred, owned and photographed by L. F. Olsen, Des Moines, Iowa.

production in his strain of standard-bred quality. It is through the eggs that reproduction must come, and if there are to be numerous offspring, regardless of standard quality or market value, the chicks have to come on earth by the egg route. The eggs laid by any given hen, no matter how valuable she is otherwise, are the LIMIT of her reproduction—hence the importance of working to secure as many eggs as can be obtained from our best hens in safety, as regards vigor, fertility, etc.

Here is a subject that all readers of the American Poultry World will do well to study—to master! If you are in earnest in your work—if maximum results and maximum profits are what you are after, here is the royal road, or one of them at least, that leads to genuine success. To produce an occasional bird, no matter how beautiful, is not enough. A "strain" is what you want—a STRAIN based on standard requirements that also will possess constitutional vigor in high degree and the PROVED ABILITY to reproduce these valuable specimens in lib-

eral numbers. In that direction lies the coveted profits—also your share of the blue ribbons at near or distant exhibitions, in public competition, under the hands of disinterested capable judges.

There is still plenty of room at the top—also less than half way up! As a matter of fact, there is very little "crowding" today part way down the line or close to the goal of real success. For example, HOW MANY established strains of "utility and beauty" White Wyandottes exist in this country and Canada at the present time? Count them on your fingers. Then do the same in the case of Barred Rocks, White Rocks, White Leghorns, Rhode Island Reds, etc. You will be surprised at the shortness of the list in each case.

Here then, reader, is YOUR opportunity. And it is an opportunity close at hand! The reward will be immediate and substantial, provided you make a right start and continue to "go right." The columns of American Poultry World, month after month, contain plenty of evidence as regards HOW to start right and to go right—and the same is true of other poultry magazines. Before long the Separate Breed Standards, to be published by the American Poultry Association, will be ready for distribution and they will be brimful of facts and advice of this kind. Your task is to

IF

YOU want to stop extremes in your incubator, clamp to it a Universal Heat-Check and your eggs are absolutely safe from too high heat. No more care or worry. Fits hot water or hot air incubators without a mar. \$1.00 each and guaranteed. Write for circular now, or send in your order at once to Universal Heat Check, Desk 109, Buffalo, N. Y.



For Greatest Satisfaction Use
DOUBLE SERVICE
Automobile Tires
Guaranteed 7,000 Miles Service

Absolutely Punctureproof

Double Service Tires are made double the thickness of the best standard make tires.

This 100% greater wearing surface naturally gives that much more mileage and service. The average of 12 miles of tough

fabric and one inch surface tread rubber makes these tires absolutely punctureproof.

These tires excel all others for use in the country over rough and rugged roads as well as on hard pavements. They are as easy riding and resilient as any other pneumatic tire—the air space and pressure being the same. They are the most economical and "care-free" tires made and are used where tires must be depended on and tire troubles cannot be tolerated. Many Double Service style tires are in use in the U. S. government and European War service. Our output is limited to a certain amount, but for a short time we offer the following reduced special prices as an Introductory Offer:

PRICES

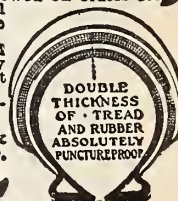
Tires Tubes		Tires Tubes	
30x3 in.	\$ 8.60 \$2.30	36x4 in.	\$17.45 \$4.65
30x3 1/2 in.	13.55 3.10	36x4 1/2 in.	21.20 5.00
32x3 1/2 in.	12.75 3.20	38x4 1/2 in.	22.50 5.75
33x4 in.	15.75 4.20	38x5 in.	23.00 6.20
34x4 in.	16.70 4.35	38x5 1/2 in.	26.30 6.60

All other sizes not included in above list also furnished. Non-skids at 10% additional.

Terms: Payment with order at above special prices, a 10% discount allowed on orders for two or more tires. All personal checks must be certified.

Try these tires now and be convinced of their very high qualities. Sold direct to the consumer only. Descriptive folder upon request. Write for it.

Double Service Tire & Rubber Co., Akron, O.
Dept. PW



*** Send us the annual subscriptions of two friends or neighbors and get your copy one year gratis.



Now it is possible to raise every livable chick

You can prevent the usual heavy mortality during the critical first three weeks—can raise every livable chick, avoid disease, secure rapid growth and sturdy constitutions by feeding

Pratts Baby Chick Food— Makes Chicks Live and Grow

Real baby food for baby chicks. 75 per cent. predigested. It contains bone and muscle builders, grows vigorous, active chicks. Intestinal trouble, leg weakness and other disease foes of chick life unknown. Why run the risk of losing chicks when at a cost of a cent a chick for three weeks, you can raise every livable chick. Extra chicks saved pay for all food.

25 lb. bag \$1.50; 14 lbs. \$1.00; Packages at 50c and 25c.

Pratts Poultry Regulator **PRATT FOOD COMPANY**

25 lb. pail, \$2.50.
Packages at \$1.00, 50c and 25c.

Philadelphia, Chicago, Toronto



FASHION PLATE BUFFS

Trap-nested for heavy egg yield, line-bred for vigor and to win—three in one, a triple value not found outside the FASHION PLATES.

We have the cleanest lot of Head line breeders—February and March hatch that were ever offered. Exhibition birds sold at real value, conditioned and trained without additional cost.

Tested breeders that have the blood lines to produce the best. Utility fowls raised from trap-nested families, at almost food prices—all sold guaranteed to please.

Send for the FASHION PLATE BOOK illustrated from cover to cover, contains description of all surplus stock with price attached; matings, eggs for hatching, etc. FREE.

A. E. MARTZ,

(Buff Orpington Specialist)

Box E,

ARCADIA, IND.

Advanced Position of President E. E. Richards in Behalf of Improved Conditions in the Poultry Field

THE following impressive paragraphs are from the address of E. E. Richards, Cedar Rapids, Iowa, president of the American Poultry Association, as reprinted from the Official Proceedings of the Fortieth Annual Convention of this organization, held at San Francisco, Calif., Nov. 16-19, 1915:

"FOR forty years the American Poultry Association has been attempting to promote the poultry industry of America, and I feel that there is no other single factor that has ever been so steadfast in its efforts to promote and bring about greater progress in the live stock department than this organization. It has been suggested that I perhaps outline some of the things I would like to see accomplished during the coming administration. I do this in view of the fact that no doubt the responsibility and the success of the administration will be laid upon my shoulders and as I see we have with us a large number of our presidents of the branches, the first thing I would like to speak about is the closer affiliation of our state branches. I know that this is a difficult problem, one which is not easy of accomplishment, and I know we have got to exert some great co-operative spirit in our different state branches in order to bring about the result which we hope to bring about under our new constitution and by-laws. I feel that this can be accomplished.

"The next suggestion I have in mind, and have had for a great many months, is the fact that the state government experiment stations, throughout their extension departments, are doing a wonderful work for successful poultry culture, and that the American Poultry Association is not co-operating as it should. We should extend a more co-operative spirit. There are lots of states in which this work is not being done. In some states nothing being accomplished and we should be able to get all states lined up and work for that broad interest.

"Another topic is the fact that in many states we have boys' and girls' poultry clubs. I do not know how many of the states have boys' and girls' poultry clubs, but there is no state that cannot have them if they will co-operate with the United States Department of Agriculture through their own state departments. The boys and girls of the present generation will be the fanciers and members of this Association in a few years.

"MY NEXT thought is the fact that we are an Association that should undertake certain reformatory measures. We have fostered this great growing industry for years, and it seems to me that no other Association can take hold of these problems and bring about the success and accomplish the results, as well as the American Poultry Association.

"I presume you are all aware of the fact that in every endeavor the unscrupulous money grabber uses every effort to get the dollar. The poultry industry is not exempt. We are beset with an evil known as 'huckstering,' and it matters not to me whether it is of low or high degree, but it seems to me that we should endeavor to eradicate some of the evils that are leading to the expenditure of money without results.

"I presume there are at least one hundred thousand dollars' worth of money spent in Iowa alone through huckstering. I am somewhat acquainted with some of their tactics and I presume there is not a person who has read the Poultry Press or has listened to many fanciers talk, that does not fully realize the situation. It is one that this Association has got to take hold of, and I think that before the sessions of this convention close, resolutions will be passed, and committees appointed, to undertake a thorough investigation of this topic. We hope so.

"It has also been suggested that even the men that we thought were high class fanciers are sometimes the greatest exaggerators, and that they do not fully live up to the Golden Rule, and in their advertising are as misleading perhaps as some of those we call 'hucksters.' It is also suggested that we have a censorship in this organization to go after this kind of people. If there is anything to be done to elevate our industry, it lies in the hands of this Association—it lies in the backbone of the officers and members of this Association and I am about to undertake that duty, and I feel that I am able, at least as far as weight is concerned, to carry any responsibility that is put upon my shoulders. (Applause.)

"I WOULD like to refer just briefly to the business of the Association. Before the meeting is over you are going to listen to a report of our committees on Breed Standards and on the Plymouth Rock Standard. We think that this standard will be ready for publication immediately following this meeting. As you perhaps are aware, we had a text-book committee last year to compile a poultry text-book for the use of public schools in the seventh and eighth grades. I am very sorry we are not able to present a complete book at this meeting, but the committee has completed the book, O. K'd the copy, the matter is 'in plates, and before Christmas morning, the text-book, issued by the American Poultry Association, will be for sale to the public schools of the United States. The contract for the manufacture and distribution was placed in the hands of J. B. Lippincott & Co., Philadelphia, who are without doubt the largest text-book firm in the United States dealing with agricultural topics. I think the contract is one which is very liberal, and I shall certainly feel that the book will sell in hundred thousand lots. I will not be surprised if the profits are even greater than on the Standard of Perfection.

"We also have in process five more Breed Standards to be put on the market, the Orpington

Standard, Leghorn Standard, Rhode Island Red Standard, the Wyandotte and the Minorca. Now, it seems to me that instead of dilatory tactics requiring a year or two of the energy expended on the part of a great many of our members who are doing the best they can under adverse circumstances, this Association should attempt to get a committee at work that can accomplish greater results, and that these Standards should be put on the market within the next twenty-four months. Our present Standard cannot be changed except by vote oftener than eight years, but I feel along toward the latter part of the period the people will become restless and desire a change in the Standard. Very much in the Standard, of course, affects the Breed Standards, and will no doubt lessen their sale, and for that reason it seems to me if we do not accomplish some results along the line of a publication committee within the next twenty-four months, that we will shorten our sale on the Standards to such an extent that there is a possibility that the result we anticipate will not be accomplished.

"This meeting is not going to be an aviation meeting, but we are going to pass, perhaps, if the members are in full accord, some of the suggestions of the men of this Association who have spent much time and energy in its behalf, and if we do pass some of these things, I feel that some of the greatest results will have been accomplished that have ever taken place in the history of the American Poultry Association. I thank you. (Applause.)"



E. E. RICHARDS
Cedar Rapids, Iowa.

President of the American Poultry Association, who stands for progressive and aggressive work on organized lines in behalf of better poultry and more of it.

learn to separate the wheat from the chaff—and then to “go to it.”

NOTES ABOUT THE A. P. A. ELECTION TO TAKE PLACE THIS MONTH

Election of officers of the American Poultry Association is by mail, all members being entitled to vote. Nominating ballots were sent out in February by O. L. McCord, Election Commissioner, Peoria, Ill., and following is Mr. McCord's statement showing the candidates who received the required ten per cent. of the total number of votes cast for each officer, also for the time and place of holding the 41st annual meeting:

President	
E. E. Richards, Cedar Rapids, Iowa....	423
A. A. Peters, Denver, Colo.....	75
Vice-President	
A. A. Peters, Denver, Colo.....	279
Jos. Russell, Toronto, Ont.....	40
Secretary	
S. T. Campbell, Mansfield, Ohio.....	585
Time of Holding 41st Annual Meeting	
Second week of August.....	366
Third week of August.....	81
Place of Holding 41st Annual Meeting	
Cleveland, Ohio.....	411
Detroit, Mich.....	41
Executive Committee	
District No. 2	
Thomas Poole, Atlanta, Ga.....	150
C. P. Van Winkle, Dallas, Texas.....	20
Mrs. Florence Forbes, New Decatur, Ala	20
District No. 5	
L. C. Byce, Petaluma, Cal.....	90
H. H. Collier, Tacoma, Wash.....	59
J. D. Veach, Hubbard, Mont.....	47
Robt. G. Bailey, Lewiston, Idaho.....	45
M. E. Dillingham, San Gabriel, Cal...	18
District No. 6	
John S. Martin, Port Dover, Can.....	53
W. M. Coates, Vancouver, B. C.....	51
Richard Oke, London, Ont.....	41
Jos. Russell, Toronto, Ont.....	28
W. R. Graham, Guelph, Ont.....	24
H. B. Donovan, Toronto, Ont.....	19
Robert H. Essex, Fruitland, Ont.....	18
O. L. McCord, Election Commissioner, Peoria, Ill.	

March 1st, 1916.

E. E. Richards should be re-elected president. He did not take office until last November, hence has not had an opportunity to get the work of his administration well under way.

A. P. W. regrets that it is not in a position to recommend the re-election of Arthur A. Peters of Denver, Colo. Mr. Peters lacks the ability and knowledge to fill the office of president satisfactorily, in case the president should be disqualified to act—a fact that we claim was made clearly evident at the San Francisco convention. In these days the American Poultry Association needs as its presiding officer and executive head, a man of broad experience, keen judgment and true independence. According to our view, based on several years' observation and personal knowledge in A. P. A. work, Mr. Peters does not possess these qualifications in sufficient degree.

S. T. Campbell deserves to be re-elected again to the office of secretary. He has served in this capacity faithfully during five or six years in succession and the fact that there was no opposition to him this season, as shown by the above

list, is a high compliment to his loyal endeavors.

The numerous live and hustling friends of poultry culture in and near the city of Cleveland, Ohio, ask that the week of August 14-19 be selected by voting members of A. P. A. as the time for holding the next annual meeting. They have good reasons for making this request—reasons beneficial to the association and industry; therefore let us hope that all who send in their election ballots will comply with this request, as to the exact dates. No better city on the map of North America could be selected for holding the forty-first annual meeting of this association.

Thomas Poole has asked for election as Executive Committeeman from District No. 2, representing the southern states, and he is said to be a straight-forward and capable man. For several years, C. P. Van Winkle, editor of Poultry News, Dallas, Texas, has taken an active interest in A. P. A. matters. Either of these men would strive earnestly to represent southern poultry interests on the Executive Board of the general association.

In a letter of date March 16th, Lyman C. Byce, Petaluma, Cal., asks for re-election. He says that he did not seek re-election, but is complimented by the vote given him on the nominating ballot and if re-elected he will serve to the best of his ability.

From District No. 6, representing the provinces of Canada, it will be hard for well-informed and conscientious members of A. P. A. to make a choice. Here

S. C. AND R. C. REDS THE CRIMSON STRAIN
New York State Championship R. I. Red Club and Red Breeders Club. Winners New York State Fair, Grand Central Palace and elsewhere. Write for mating list and prices.
CHINA HANCHETT, VEONA, N. Y.

Eggs From Strong, Healthy, Vigorous Birds. RHODE ISLAND REDS. LIGHT BRAHMAS

Standard bred utility and fancy combined. Prodigious, early maturing winter layers, 16 years experience. Send for circular. You can't do better.

Buena Vista Farm, Route 1, Northboro, Mass.

SANBORN'S
PEDIGREE
S. C. R. I. REDS

309 EGGS IN 365 DAYS

We breed and own the champion layers of the world, breeding from careful selected trap-nest record stock for eight years. Hen number 1125 layed 309 eggs in 365 consecutive days a world's record unsurpassed.

Grand Pedigreed Males from Record Hen

We now offer for sale a limited number of males from our famous egg record hens. Improve the laying qualities of your flock by breeding from one of these pedigreed males.

Write today for free list of over 400 trap nest records and prices.

SANBORN'S POULTRY FARM

H. W. SANBORN, Prop.

West Mansfield, Mass. P. O. Attleboro, Mass

*** A. P. W. stands back of its advertisers. Read our guarantee on the first page.



Reduced Prices May 1st

Beginning May 1st, prices on all Pittsfield Day-Old chicks will be reduced each week, because of larger egg production and better hatches. Leg-horns will be reduced ½ cent each, all others ¾ cents each. (Each week during balance of season).

PITTSFIELD

Pure-Bred Day-Old Chicks

APRIL PRICES.	For 25.	For 50.	For 100.
Barred Rocks	\$5.00	\$10.00	\$18.00
White Rocks	5.00	10.00	18.00
S. C. Rhode Island Reds	5.00	10.00	18.00
S. C. W. Leghorns	4.25	8.50	15.00
White Wyandottes	6.00	12.00	22.00

THE RIGHT START.

Only a well bred chick can be the biggest money maker for you. A right start with the famous Pittsfield Strain will cut out the uncertainty. With ordinary care they produce extraordinary profits. Prices are very low.

ORDER NOW — WE'LL SHIP ANY TIME.

Just tell us how many you want—which breed—when we shall ship.

Pittsfield Poultry Farms Co. 276 Main St., Holliston, Mass.

SWEEPING VICTORY AT MADISON SQUARE GARDEN, JANUARY 1916

INTERNATIONAL PARTRIDGE ROCK CLUB SHOW. NATIONAL BRONZE TURKEY C. SHOW

PARTRIDGE ROCKS. Win 4 of 5 firsts, 11 other regular prizes and 25 of 36 specials. Make 6th consecutive and greatest win ever made at Madison Square Garden. Stock always for sale. Eggs. Catalogue for stamp.

BRONZE TURKEYS. Win every first, 12 other regular prizes and 16 of the 18 specials. Make 9th and greatest win ever made at Madison Square Garden. Stock always for sale. Eggs. Catalogue for stamp.

BIRD BROTHERS

BOX 14

MEYERSDALE, PA

are half a dozen excellent men. No mistake will be made in choosing any one of them. John S. Martin has offered to serve, provided the honor is given him by his fellow-members. Probably Mr. Martin deserves this honor fully as much as any other man in this list of Canadians, and it is likely that he will be elected. No mistake will be made if he is the choice of the voters.

COMPLIMENTS PAID TO GUARANTEED DISPLAY ADVERTISERS OF AMERICAN POULTRY WORLD

This magazine makes a faithful effort to keep out of its advertising columns the business announcements of men and companies that are not reliable—that we have reasons to believe will not treat our subscribers honestly and fairly. Such being the case, our subscribers need not hesitate to place orders with these display advertisers.

In view of the above situation, it is a special pleasure to us to receive letters from subscribers, telling of the satisfactory poultry transactions they have had with A. P. W. advertisers. Following are two such letters as found among our unanswered mail in a recent "clean-up."

"Hudson Falls, N. Y., March 11, 1916.

"Editor American Poultry World:

"I have received three or four copies recently of the American Poultry World and I think it is great. I fell in love with it at once. I was very thankful to have it sent to me.

"I sent to Chas. V. Keller, of Winamac, Ind., for a White Wyandotte cockerel and you can tell your readers that I received 'more cockerel' for the money in this case than I

ever received before. It is a pleasure to deal with such a man.

"Yours very truly,

PHILIPPE BEAULAC,

61 Feeder St."

"Baltimore, Md., December 1, 1915.

"Editor American Poultry World:

"Knowing that you are always glad to receive letters concerning your advertisers, I want to let you know that I answered an ad in the A. P. W. I wanted to buy a few Buff Leghorns and I must admit that I received just as square a deal as if I had seen the birds before they came. They are all perfect beauties and I haven't seen any better in the state of Maryland.

"Mr. L. E. Merihew, Marathon, N. Y., has been advertising Buff Leghorns at half-price. I asked him to send me the prices on six hens and a cockerel. After looking over the prices I decided to send for the birds and I am very glad I did. I know by the looks of the other birds that have been entered in the poultry show now going on in Baltimore that I would have made some of them look awfully queer, as I visited the show room and did not see a bird that could stand close with mine because, I looked over the Buff Leghorns there and could not see anything nearly as good as mine.

"In regards to Mr. Merihew and his poultry dealing methods, I can say I know none better, as he gave me a square deal and I am sure he will give others the same thing.

"Now if my letter will benefit you in regards to your advertisers, please use it and welcome.

"Sincerely yours,

J. C. FOGLE,

733 Harvey St."

A. P. W. believes that it is just as much the DUTY of the "pleased" buyer to write to his favorite poultry journal, or to the periodical in which he saw the advertisement and to state how well he was treated, as it is for the "abused" purchaser to write to an editor and complain of mistreatment. Naturally this will not be the case, but it ought to be done oftener than it is. Frankly, we like

to print letters of this kind, because they are proof that many sellers of poultry try faithfully to do the honest and square thing, and having done this, it is not only right but HELPFUL that the good news should be given to the interested public.

REMEMBER THAT APRIL, MAY AND EARLY JUNE CHICKS ARE THE BEST, AS A RULE

Although hundreds of thousands, in fact several million day-old chicks are to be bought this spring, especially during the latter half of the season, still it is true that the demand for hatching eggs is quite satisfactory, according to reliable reports we have received during the last few weeks.

This is especially true in the case of eggs from high-class and specially-mated fowls. A large majority of buyers of this quality are not willing to trust exceptionally valuable birds to the mercy of express handlers, or to the unavoidable conditions under which day-old chicks must be shipped to distant points. It is a risky experiment to ship special-quality day-old chicks several hundred miles—chicks that are worth one to five dollars each. This is true even during the latter half of the season, and it is almost foolhardy to do it in the early spring, while unsettled weather continues.

In New England and several other northern states, also in Canada, the late winter and heavy snowfall have interfered somewhat with egg sales, if we

OWEN FARMS MATINGS FOR 1916



BUFF ORPINGTONS
WHITE ORPINGTONS
WHITE PLYMOUTH ROCKS

WHITE WYANDOTTES
S. C. RHODE ISLAND REDS
S. C. WHITE LEGHORNS

MEAN MUCH TO YOU

- 1st.—They mean that you will receive eggs from the best quality pens in AMERICA. Pens that have been carefully mated by Maurice F. Delano, who has had over twenty-five years experience in breeding thoroughbred poultry, and by Frank H. Davey who has had forty years of such experience.
- 2nd.—They mean that your eggs will come from the best and most carefully line bred flocks in all the WORLD in my varieties. Flocks that year after year have gone serenely on producing the best specimens for the best shows in the United States, Canada and various foreign countries.

768 OWEN FARMS BIRDS HAVE BEEN PLACED AMONG THE WINNERS AT MADISON SQUARE GARDEN, NEW YORK AND 393 OF THESE BIRDS HAVE WON FIRST PRIZES SO FAR AS COMPETITION FROM OTHER BREEDERS IS CONCERNED. NO SIMILAR RECORD HAS BEEN MADE BY THE BIRDS OF ANY OTHER BREEDER IN ALL THE WORLD.

- 3rd.—They mean that for a very moderate expenditure you can share with us the results of years of careful breeding and of thousands of dollars spent for foundation birds to help make the SUPREMACY OF OWEN FARMS FLOCKS. Every one of my best matings is carefully described in my 1916 mating list. I HAVE NO RESERVE MATINGS. Every egg is marked with the pen number and breed initials when it is picked up. EGGS FROM ALL MY BEST MATINGS AS THEY RUN ARE:

\$10.00 for 15. \$19.00 for 30. \$30.00 for 50 \$50.00 for 100.

- 4th.—They mean that for a still more moderate expenditure you can secure splendid results and share in my careful line-breeding if you buy eggs from my splendid second quality matings. These matings have been made with the same care and thought that I have spent on my best pens. The males are extremely fine. They comprise my star reserve males that I carry to use in case of accident to my regular pen breeders and the cream of males that I am carrying over to make prize winning cock birds. The females are all good and carefully selected as to blood lines and individual quality to mate with each male. These matings will produce better results than the best pens of most breeders and the price is only.

\$5.00 for 15.

\$15.00 for 50.

\$25.00 for 100.



OWEN FARMS

115 WILLIAM STREET,
MAURICE F. DELANO, Proprietor.

VINEYARD HAVEN, MASS.
FRANK H. DAVEY, Superintendent.

may judge by reports received from these sections. We quote as follows from one letter of that kind:

"The bad weather without doubt has kept some from ordering, naming specific dates of shipment, but many of these will order later. I regard chicks that are hatched the last of April and during May and early June as the best of the year, except for the very early shows, but many beginners seem to feel that March and early April birds are the only ones worth while. This mistaken idea should be corrected, in their own behalf and as a help to the egg trade during the time of the year when best results are obtained from hatching eggs shipped to various points."

The purchase of eggs for hatching—securing them from reliable breeders—is still the least expensive way to get a right start in the breeding of standard-bred fowl. Select a poultryman in whom you feel certain you can rely, as regards a square deal; then tell him how much you can afford to pay and leave it to him to do the best for you he can. It is a safe rule to tell such a man what you want—what you hope to accomplish, and then let him co-operate with you. To approach him in this manner not only flatters him, but it places him "on his honor" to do the square thing—in fact, to treat you liberally. In ninety-nine cases out of a hundred the right kind of a poultryman will do this—and it is our understanding and belief that all the display advertisers in these columns are of THAT KIND. If not, we should like to know it.

SENT SAMPLE PHOTOGRAPH; WANTS OTHERS LIKE IT IN SEPARATE BREED STANDARDS

Valuable suggestions continue to come to hand for use of the committee of the

American Poultry Association that is to have charge of preparing the copy and illustrations for the six Separate Breed Standards thus far authorized to be published. Following is a sample letter, together with a reproduction of the photograph sent to us by Mr. Browne:

"Des Moines, Iowa, March 22, 1916.

"Editor American Poultry World:

"I have read with interest your article on Suggestions for the Forthcoming Breed Books, and also the letter of I. M. Ashjeld, and while I agree with his suggestions as far as applicable to Wyandottes, yet I would make a suggestion that in addition to these idealized pictures, we have some unretouched photographs of the best birds obtainable, giving the front, side and rear views.

"The novice gets familiar with the doctored pictures which appear in the paper, but to those of us who have not the privilege of seeing the best birds in the flesh, the photographs unretouched would be of more value as studies.

"I am enclosing a photograph of a cockerel taken by one of my policy-writers, to illustrate what I mean. The bird was unwashed, unprepared—simply picked up and placed on a table and the flash light taken of him, and I think the picture is even better than the bird, so that if you could get a reproduction of the photograph equally as good of the highest grade birds, it would be of assistance in comparing them with the idealized pictures.

"I am enclosing herewith \$1.00 and would suggest that you send the paper to Mr. Olson for as long as it will carry. A photograph of this bird, front and rear view on either side of this picture, would aid very materially in the study of the birds.

"With best wishes, I am,

"Very truly yours,

"J. E. BROWNE."

In every case where unretouched photographs can be used, in full justice to the bird or to the idea to be represented by the picture, such photographs should be used—no doubt about it. It isn't often that we can get as good a

photograph as this one that pictures the Martin White Wyandotte male see page 467 owned by Mr. Olsen of Des Moines. As Mr. Browne has remarked, "the picture is even better than the bird."

Editor of A. P. W. has long been a strong believer in the educational value of illustrations. We worked hard and voted often for our first "illustrated" Standard of Perfection, and never have seen cause to regret it. In our opinion, it would reduce the value of our present Standard not less than 50 per cent., as regards its proper use and efficiency, if all illustrations were omitted and we were to return to the old-style Standard, as published previous to 1905.

This idea of having several pictures, photographs preferred, that will show different views of the same bird, is a practical one. So far as we can judge, there is no good reason why pictures of that kind, in liberal numbers, should not be used in the Separate Breed Standards. Given enough time for the work, we feel at liberty to promise that these Breed Standards will met all reasonable requirements and give general satisfaction.

EDITORIAL NOTES

It is with regret that we are called on to report the death of Mrs. Kate McReynolds, wife of J. G. McReynolds, editor of Southern Poultryman, Dallas, Texas. Mr. McReynolds is widely known in the south and generally respected by honest and sincere men. His wife was a true help-mate, an appreciative partner and a loyal comrade in all the intimate affairs of Mr. McReynolds's social and

OWEN FARMS 1914-15 and 1915-16 Record at Madison Square Garden (New York), The Palace New York Show, Boston, Chicago, New York State Fair and Allentown

INCLUDES

47 FIRSTS IN 97 CLASSES

ALL COMPETITORS COMBINED WON 50 FIRSTS



This Record at the leading shows simply proves that my birds are a little finer than ever before, and that they absolutely lead all competitors for the 1916 breeding season.

18 OUT OF A POSSIBLE 27 FIRSTS ON COCKEREL

20 OUT OF A POSSIBLE 32 FIRSTS ON PEN

At Madison Square Garden, New York and at Boston in 1915-16, I won 7 firsts on Buff Orpingtons and first collection at each show. At New York Palace Show, in 1915, I won all 5 firsts on White Orpingtons and first collection. At Boston, in 1915 and in 1916, I won first collection each year on S. C. Reds. At Chicago Coliseum Show, in 1914, I won all 6 firsts and first collection on White Wyandottes. At Boston, in 1915, I won first, second and third pullet and in 1916, first and second cockerel and first pen on White Leghorns.

Complete winnings are given in my 1916 mating list and in my new catalogue. They will help you decide to place your order where you will receive a little more than you pay for.

UTILITY QUALITIES OF OWEN FARMS BIRDS ARE UNEXCELLED.
A FEW FINE BREEDING BIRDS FOR SALE TO COMPLETE YOUR MATINGS.

To save delay in delivery place your egg order directly from this advertisement. . Send 25% deposit and reserve your shipping date. After my printed matter reaches you, should you wish to change your order you may do so.

The best chicks of the year are hatched from April 20th to June 25th. . They grow, thrive and develop into winners.

OWEN FARMS

115 WILLIAM STREET,
MAURICE F. DELANO, Proprietor.

VINEYARD HAVEN, MASS.
FRANK H. DAVEY, Superintendent.



business career. She is missed by many friends, but most of all by her husband.

—o—

At a recent meeting of the Tacoma Poultry Association, Tacoma, Wash., the members present voted to return to the use of the score card, the vote to this effect being 36 for and 7 against. Here we have a large poultry organization taking this position. A. P. W. congratulates them on their good judgement. We are confident that the outcome will be a larger show, other things being equal, and we are positive that the exhibitors, taken as a class, will get far more for their money and be much better satisfied. This will be true regardless of whether or not each individual exhibitor wins a prize. Those who do not win will have something, at least, to show for their entry money. We are in hopes that many other local poultry associations soon will follow the lead of the Tacoma organization.

—o—

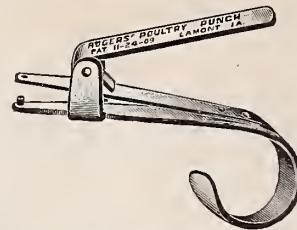
Arthur A. Peters, vice-president of the American Poultry Association, in co-operation with W. John Searle and others has started a monthly periodical at Denver, Colo., known as "The Centennial Journal", which is to be devoted to poultry, pet stock and dogs. The business address is 1842 California St., Denver, Colo. On the printed slip asking for subscriptions, this announcement appears: "Arthur A. Peters, Vice-President American Poultry Association, Editor-in-Chief." No doubt sample copies of the Centennial Journal will be sent free on request to readers of American Poultry World who wish to see a copy, with a view to subscribing.

Those of our readers who want to get started and "get started right" in the production of high-class, standard-bred, combination "utility and beauty" Single Comb White Leghorns, do not want to overlook the advertisement in these pages of D. W. Young, Monroe, N. Y., the acknowledged wizard of this popular variety. In times past many persons no doubt concluded that Mr. Young breeds only the "fancy kind", but in this they were much mistaken. As regards Standard quality, he breeds birds of highest excellence and these birds also possess great constitutional vigor and the ability to make egg records second to none. This has been proved time and again by Mr. Young, also by his customers. There is no discounting the vigor and prolificacy of the Young strain of S. C. White Leghorns. Furthermore, a man or woman does not have to pay fabulous prices for Mr. Young's stock or for hatching eggs therefrom. On the contrary, he produces birds by the thousands each year and hatching eggs by the tens of thousand. He is in a position, therefore, to quote moderate prices for really good quality, both in breeding stock and eggs for hatching—and it is his practice to do so, therefore we advise A. P. W. subscribers to write to Mr. Young for his latest mating list, containing prices of eggs, and if you are in the market for stock that you write him frankly, explaining what you want, also what you can afford to pay and we know that he will treat you right—that he will treat you liberally.

MARK 'EM.

This is reduced illustration of the "Money Back" Poultry Punch, so-called because if it

is not entirely satisfactory, it can be returned and your money will be refunded. It is strongly made, easily operated and you can



see what you are doing. The manufacturer, T. W. Rogers, Box 5, Lamont, Iowa, is a successful and reliable Poultry Fancier and he will mail you one postpaid on receipt of price, if your dealer does not sell them. For further particulars and prices see announcement on page 491.

HIS ONLY SALVATION

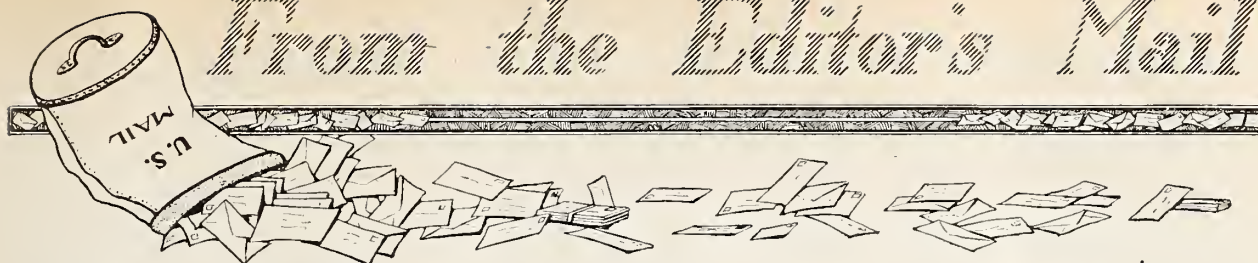
Elsewhere in these columns will be found the advertising of the H. I. Co., Inc., Salem, Va., manufacturers of "Oculum", a preparation that is spoken very highly of by those who have given it a trial. As an illustration of this we quote here, by permission from a letter written by an oculum user. Mr. Jas. F. McGee, New Richmond, Wisc., who under date of March 16, 1916, states:

"Please send me at once another bottle of 'Oculum'. The day I received the first bottle from you, I was moving my hens. Previous to moving, I did not get one egg in two months. One week to the day after moving stock, I got from 12 hens and 17 pullets, 18 eggs, and up to date they are shelling out the eggs far beyond my expectations. I never had and faith in any egg forcing compound but I must honestly state that 'Oculum' is the egg farmer's only salvation, and this has been the most severe winter in 30 years. Will always give 'Oculum' a royal boost."

The circular matter sent out by the above company contains many such flattering endorsements and verifies the claims made by them.



The above illustration shows a pen of winning Rose Comb Rhode Island Reds from the well known Red Feather Farm, F. W. C. Almy, Proprietor, Box 22, Tiverton Four Corners, R. I. The quality of the Reds produced at this farm is demonstrated each season by their winnings at such shows as Madison Square Garden, Boston, and Providence. At these three shows more than two hundred and fifty prizes have been won by Red Feather Farm Reds since 1910. At the last Madison Square Garden Show this farm won more firsts than any other exhibitor including all first prizes on females a feat never before accomplished by one exhibitor. A few weeks later at the great Boston Show another grand record was added to their long list of winnings and they won three times as many first prizes as any competitor. All these winners and many others are now in their breeding pens which are fully described in the mating and price list sent to readers interested in better Reds.



A TRIBUTE TO JOHN FRAYN

Editor American Poultry World:

Have just received from England the October 30th number of the "Launceston Weekly News" containing the enclosed notice of the death of John Frayn, Cornwall, in which county is located Launceston, is the birth place of Indian Game, now classed in our Standard as Dark Cornish. One of the earliest partons of this new breed was John Frayn. Have corresponded with him for years. Only a year ago he wrote me that he had bred them for nearly fifty years, and as he was just passed sixty-five at his death, his choice of a breed was made in his youth. His experience was so ripe that his letters were always of interest. The number of Crystal Palace winners bred by John Frayn will never be known. In later years he never, or rarely ever advertised. Buying a cockerel from him at one time (within the last few years) he wrote me, I cannot give facts, but your cockerel is one closely related to the Crystal Palace first cockerel as two birds could be. His birds have to their credit more prizes, throughout the world than any breeder of Dark Cornish (Indian Game) whether this was due to his long experience or his superiority as a breeder may be a question. Of course, long years for sales may have added to his laurels, but in my judgment we have never had a breeder with the valuable ideas of the Cornish as had John Frayn. He realized that the Cornish Indian Game (a mixed breed in origin) was not to be a game, but a table fowl. He realized that the long legs of the typical game must be discarded and to him, more than any one breeder is due, the broad heavy bodies upon the short legs of the Dark Cornish.

His death is a distinct loss to the Cornish breeders of all countries. It will be a long time before we will find one as faithful to the trust as was "The Old

Blacksmith" (for such he was) of Launceston. When he wrote anything (which he did not often for publication) it was worthy of consideration. To my mind (but I may be prejudiced by long intercourse) he was the chief of Cornish breeders of the world. Long live his memory.

W. W. Graves.

Jefferson City, Mo.

ONE OF THE BEST

Editor American Poultry World:

I think, and I do not say this just to hear myself talk, that your paper is one of the cleanest papers that I have looked at in some time, by this I mean your paper is clear white, your cuts are fine, and your printing is readable, and these things seem to be lacking in other papers. I know that it does not pay to buy cheap stock of any kind and I am pleased to say that your paper is one of the best.

A. F. Caulkins.

Auburn, N. Y.

FAVORS THE SCORE CARD

Editor American Poultry World:

Enclosed find my subscription for your valuable paper. I wish to state that your article in your last paper is the very best thing that I have read in regard to selling poultry; that is, the score card to be used at all shows. This gives the small breeder a fair chance and also gets him into the shows where he would not enter a bird on the comparison plan. In selling a bird, he can enclose his cards and a man can see at once where the bird is cut and how much. He is certainly not "buying a cat in the sack", this way and in order to sell at the shows would also get a much better showing. I breed a few S. C. R. I. Reds and Buff Leghorn and would rather sell by score card than any other way. Keep on with

the good work until the card is used at all the shows.

John A. Holland.

Dubuque, Iowa.

LIKES THE NEW COVERS

Editor American Poultry World:

The new covers on the American Poultry World ought to make it the season's best seller, even though there was nothing between the covers. But, I contend that there is more between the covers for the average pure-bred poultry breeder, than in any other poultry journal in America, and it is dished up in a more palatable form.

Ralph Searle.

Topeka, Kansas.

SURPRISED AT RESULTS FROM

A. P. W.

Editor American Poultry World:

Our catalog and mating list, mating up our breeding pens and yards (which required a lot of time) and the tremendous daily mail in connection has almost swamped us. We are getting caught up a little but if this thing keeps up, I don't see how we can ever do anything else.

In this connection we wish to say that the returns we are getting from the American Poultry World are beyond our highest hopes. Inquiries from all over the United States and orders too; letters daily from almost every state and Canada. We wish to refer especially to Mr. Schilling's illustration of "Frisco" on the front cover of the January issue and also to Mr. Curtis' article in the same number. They both were magnificently done and we cannot say enough to show our pleasure and appreciation. We have received many letters referring to both of them. Very truly yours,

E. B. Martin.

Downey, Calif., February 18, 1916.

Homestead Silver Campines

The Vigorous Strain

AT THE BIG BOSTON SHOW, JANUARY, 1916.

At the largest winter show of the season—cock, 1-2-3-5-6; hen, 1-2-3-4; cockerel, 1, 3, 4; pullet, 1, 3, 5, 6; 1st and 2nd exhibition pen, 1st display, special for best cock, hen, cockerel, pullet and pen.

PALACE SHOW, NEW YORK, 1915.

At the second largest show of the season, Frank L. Platt, Judge—1-4 cocks, 1-2 hens, 1-5 cockerels, 2-4 pullets, 2nd exhibition pen, 1st display, special for color and type, 1st hen, special for color, 1st cockerel.

NEW YORK STATE FAIR, 1915.

The first big show this season—2nd cock, 1st hen, 3-5 cockerels, 2-3 pullet, 1st old exhibition pen, 2nd young exhibition pen.

WON AT BOSTON, 1915.

Thirteen regular prizes—four firsts, special for best display best cock, hen, cockerel and pen.

The comment on the quality and condition of our birds at the above shows was universally—WONDERFUL! We have many more good birds at our HOMESTEAD CAMPINE FARM and if you are interested we shall be pleased to send you one of our new catalogues. Our aim always is to give full value and satisfaction. We would suggest to our prospective purchasers they book their orders as soon as possible that they may not be disappointed for from present indications, the demand for both hatching eggs and stock will be greater than the supply.

We have mated about twenty pens for 1916 all headed by prize winners and we are giving our patrons the full benefit of every prize winner and not a single egg is shipped from our farm that we would not use for our own purpose.

Homestead Campine Farm, Box W, Wayland, Mass.



NO END TO LIFE OF ADVERTISEMENT IN A. P. W.

Editor American Poultry World:

One year ago this month I advertised with A. P. W. one issue. Last week I sent trio to customer who wrote, "I saw your advertisement in A. P. W." There seems to be no end to the life of an advertisement in your paper. I have been unable to get any Belgian Hares ahead for over a year.

Respectfully,
C. I. Hunt.

Hunt, N. Y., March 2, 1916.

MAKING A BIG HIT

Editor American Poultry World:

Your February issue just to hand and I want to congratulate you on this fine edition. Beginning at the cover it looks good. You certainly are making a hit with these excellent, lively covers, with the illustrations of Standard-bred birds.

Very truly yours,
Rancocas Poultry Farms,
Reese V. Hicks.

Brown's Mills, N. J., February 17, 1916.

CONGRATULATIONS

Editor American Poultry World:

Allow me to congratulate American Poultry World on its snappy appearance and work during the past several months.

Sincerely yours,
C. R. Baker.

Abilene, Kansas, January 19, 1916.

LIKES IT BEST OF ALL

Editor American Poultry World:

I sent you ten cents about four months ago for a four months' trial to your paper and would say I like it best of all as I read them all every month and would say I don't want to miss an issue.

John W. Owens.

Portsmouth, Va., March 1, 1916.

WELL PLEASED

Editor American Poultry World:

Enclosed find \$1.00 for subscriptions and a copy of the Orpington Book. I was especially pleased with Mr. Denny's

article, "That Word Utility" in the November issue.

Respectfully,
Lilly Goodrick.

Logan, Ia.

EVERY ONE DELIGHTED

Editor American Poultry World:

Enclosed you will find subscriptions for twenty-six one year and one two year subscribers. I was sick all through the month of February or you would have heard from me sooner. I have no trouble in selling your paper, it is a pleasure besides. Everyone is delighted with the sample copies. Have you a few more you can send me. Wishing you continued success, I am

Yours very truly,
R. T. Zimmerman.

Fincastle, Va., March 8, 1916.

*** All readers are invited to write us their experiences in poultry raising. Tell us of your greatest difficulties and how you overcome them.



PRIZE WINNERS, PANAMA-PACIFIC INTERNATIONAL EXPOSITION, SAN FRANCISCO, CAL. NOV. 18-25, 1915
BRED AND OWNED BY A. C. HAWKINS, LANCASTER, MASSACHUSETTS.

Few of the present day breeders of the old and popular Barr Hawkins, Lancaster, Mass., and few if any have rendered greater service to the improvement of this good old standby. The prize on hen and second cock at the Panama-Pacific exhibition is no small achievement in itself but it clearly demonstrates that the Hawkins productions not only possess the quality required to withstand so long a journey and still appear in prime condition but also that they have the vigor and stamina to stand the strain and come out with colors flying.—W. A. W.

ed Rocks have had longer experience with the variety than A. C. Hawkins. He has kept pace with the times and to be able to ship birds clear across the continent and to win first prize is only a grand achievement in itself but it clearly demonstrates that in such competition, but also that they have the vigor and stamina to stand the strain and come out with colors flying.—W. A. W.

PROTECT YOUR CHICKS BY DISINFECT- ING INCUBATORS BEFORE EACH HATCH

We quote from a personal letter recently received from A. H. Zenner, president of the Zenner Disinfectant Company, 370 Lafayette Ave., Detroit Mich., manufacturers of the well-known disinfectant and animal dip, Zenoleum. Mr. Zenner says:

"There is one thing I would like to draw your attention to. You never find any endorsements published in regard to Zenoleum except those from the very highest authorities either in the experimental colleges or in the actual work of producing birds, for instance, such endorsements as those of the Pittsfield Farm, Michael K. Boyer, Rancocas Farm, Owen Farm, etc. We do have in our files hundreds, I might say thousands, of letters of endorsement from the smaller breeders and poultry fanciers and live stock owners all over the country, but we have always made it our policy to use only names of national character, because the circulation of our literature as well as of our advertising in general is so broad that we cover the entire nation, and local names of people well known in California would mean nothing if printed in New York State and vice versa. Never yet have we sent out a single story in regard to Zenoleum but that it was thoroughly substantiated by dominating authorities.

"We were the first concern to take up the question of disinfecting incubators. Then we went further and suggested the dipping of eggs before putting them into the machine. The writer was the first to suggest the thought of dipping hens at all. We were the first American manufacturers to produce a coal-tar disinfectant that was safer than carbolic acid, cheaper than carbolic acid, yet having a greater germicidal value than carbolic acid, because as you probably know, Zenoleum has two and one-half times the germicidal power of pure carbolic acid.

"It takes two and one-half gallons of carbolic acid to go as far as one gallon of Zenoleum, and sufficient carbolic acid to do the same amount of work as a gallon of Zenoleum costs about twenty-seven times as much as Zenoleum, besides carbolic acid is dangerous in the hands of a novice, while Zenoleum is safe no matter who handles it.

"I want to say also that there is no sense in the stand that some people have taken, that carbolic acid is more available than Zenoleum. Now, that is not true, for you can go into wholesale drug houses from Maine to California, from Washington to Florida, from Minnesota to Louisiana and get Zenoleum. Further than this, we give every one of your readers the added protection against any possible negative answer or hold-up by offering to ship, charges prepaid, anywhere in America a package of Zenoleum at the advertised price. This is not done for the purpose of getting direct business so much as it is to guard the customer against an overcharge, for some druggists are in the habit of doing that sort of thing if they get a chance. They do not like the idea of selling a quart of Zenoleum to a customer who would come back many times and spend many dollars to get other things for the same purpose, wherein Zenoleum serves a variety of uses for the smaller price.

"Your suggestion about disinfecting machines between hatches is a good one. I remember when talking with Prof. Graham that he said that he would not think of setting a machine before first disinfecting it with a 10 per cent solution of Zenoleum. I believe that a machine should be disinfecting with a one per cent solution of Zenoleum just as soon as the chicks are hatched, it does not take much material to do that. Then the machine should be disinfected again, as per Prof. Graham's suggestion, before the eggs are put in the machine. The same sanitary precautions should be observed in connection with the brooder. In other words, every possible fortification should be set up against the spread of the diarrhoea germ."

The Zenner Disinfectant Co., send out a clever bit of advertising," called Poultry Life Insurance which will be sent free on request, together with their poultry book entitled, "Causes, Symptoms and Home Treatment for ALL Poultry Diseases." This "Insurance Policy" contains many suggestions regarding poultry diseases and how to treat them, also a number of testimonials from such well-known breeders as M.F. Delano, of Owen Farms, W. R. Curtiss Co., of Niagara Farm, Rancocas Poultry Farms, U. R. Fishel, Wm. Cook & Sons and Dr. N. W. Sanborn. It has the endorsement of a great many Agricultural Colleges and Experiment Stations, including the well-known Experiment Stations at Cornell and Mountain Grove, Mo.

Prof. W. R. Graham, poultry expert for the Ontario Government at the Guelph Agricultural College, in a series of experiments reported in Bulletin No. 151, said:

"We have succeeded in hatching chickens that grow and live well, by washing the machine with a ten per cent solution of Zenoleum before putting in the eggs, i. e., after the machine is heated to the required temperature, the machine is washed all over the inside, including the egg tray and everything. Do not be afraid of using too much of the mixture; if it stands in pools in the bottom of the machine no harm will be done.

"Zenoleum was used as a disinfectant in a test alongside of mercuric chloride. The results were that the chicks from the machine washed with the tarry compound (Zenoleum) lived, while most of the others died."

Prof. Graham says further: "In our experimental work at Guelph we proceeded as follows: First, the machine was heated up as usual, and was ready to set. We then made a 10 per cent solution of the tarry

compound (Zenoleum), mixed with warm water. The interior of the machine was thoroughly scrubbed or soaked with the solution. Sufficient of the mixture was used so that the top of the machine would drip; the sides were very wet and the bottom was covered with the mixture. The tray was washed, and the thermometer. Care was then taken to cover every inch of the machine. While the machine and tray were still wet the eggs were placed in the machine. One can readily imagine that with such a mixture inside a hot machine, the odor is strong. What the active principle is I am not prepared to say, but so far, by thus washing the machine, we have increased the vitality of the chicks. Our experience to date is that the washing should be done before the eggs are put in, and further, if done any time after, say the first day, it is of little or no use."

"Good results were obtained by using a moisture pan one inch deep filled with water, and placed in the bottom of the machine.

Young's Strain Single Comb White Leghorns

YOUNG'S Strain is acknowledged throughout the World as being the STANDARD for ALL THE LEGHORNS and the LEADERS of HEAVY LAYERS. It is the original line-bred Strain of Leghorns in America today.

The One Strain That Has Made Good

For many years it has been a known fact throughout the United States and Canada that it has been impossible to win without my strain. It has won and is still winning the blues for my thousands of customers.

Such a letter as the following tells its own story, as to my dealings, and I have hundreds more of them:

D. W. YOUNG, ESQ., St. MARYS, ONT. CAN., NOV. 5, 1915.
Monroe, N. Y.

DEAR SIR:

The several settings of eggs I purchased from your Pens, Nos. 1 and 2, brought fine results. Both cockerels and pullets show their choice breeding, and I am fully satisfied with results. It is some eighteen years, since, as a boy, I first purchased Leghorns from you, and your straightforward and generous treatment of customers has always given entire satisfaction, in so far as it was in your power to do so. You have the goods, and you deliver the goods, both at the big shows and to purchasers of stock and eggs. Your splendid success serves you right. Thanking you for your generous treatment, I am,

(Signed)

Yours truly
J. GEORGE MILLER.

The show season is here. If you are going to exhibit, you must have the best to win. Why not come to headquarters and get the best? My stock has outclassed itself in quality this season. My birds have never been so superb or shown such perfect health and form. I am offering and selling the finest, most beautifully finished birds now, that it has ever been my pleasure to offer. Hundreds of yearling hens and grand cockerels for sale at reasonable prices.

WRITE ME for quotations and I can please you from the best the world produces. Mating list describing the most wonderful S. C. White Leghorn breeding pens ever put together free, if you mention A. P. W.

(The show specimens have always been chosen from the best layers, a point worth noting.)

D. W. Young, Box E13, Monroe, N.Y.



These were kept in the machine until the eggs began to hatch out. Milk was used in some of the experiments with the idea that by putting certain germs in the milk, the carbon-dioxide could be produced."

"The conclusion is reached that a great deal of moisture is necessary in the incubator; that the addition of Zenoleum to the moisture proved of the greatest value in

in great numbers as human food. At least three-fifths of the people in this country will eat their breakfast tomorrow morning in part or wholly of eggs. Fully half of this great throng will eat a dinner in which eggs or poultry as meat are utilized and more than two-



Herewith is shown the interior of the selecting pen at the Ancona Farm of H. Cecil Sheppard, Berea, Ohio. Mr. Sheppard carefully examines and selects specimens that are to be forwarded to customers and to add that the greatest care is used to secure birds that fully meet the customers demands is but stating the truth. The motto here is a satisfied customer is the best advertisement and his success in pleasing his patrons is one of his greatest business assets.—W. A. W.

maintaining the vitality of the chicks by protecting them from diseases which always demand such heavy toll from incubator chicks where no disinfectant is used. To the essential of proper temperature must be added proper moisture and a proper disinfection, and for the latter purpose Zenoleum must be given first place."

ARE YOU GETTING HALF AN EGG A DAY?

That's What You've "Got Coming"—Looks as Though Supply Would Never Equal Demand

The United States has a population of a little more than one hundred million, and the annual egg production of the country is estimated at twenty billion. If all these eggs were used as human food, it would mean half an egg per person daily.

Are you getting your half? Of course not!

Millions of these eggs are used for hatching purposes, millions more are made unfit for food by carelessness on the part of the farmer or producer and by improper methods of shipping and storage, and still millions more are used by factories, tanneries, bakeries and numerous other industries.

In spite of all this, eggs are consumed

thirds of these people will eat eggs in some form or another for supper.

Strictly fresh eggs are always in demand, and frequently retail in our large cities at prices which make them prohibitive to any but the wealthy. According to present indications, the supply will never equal the demand.—C. S. Anderson, Colorado Agricultural College, Fort Collins, Colo.

SCHNELLERS PARTRIDGE ROCKS

H. J. Schneller, Bethlehem, Pa., breeder of Partridge Rocks, advises under date of February 23rd, that he had two hatches come off the week previous and that the eggs showed remarkable fertility, hatched well and that the chicks were strong and vigorous. He is booking orders from these same pens and believes his customers will have equally as good results as he uses the greatest care in packing eggs for shipment. The Partridge Rocks are growing rapidly in popularity and the future looks very bright for them. Readers desiring hatching eggs can depend upon a square deal if they entrust their order to Mr. Schneller. Just mention A. P. W. when writing him and it will be appreciated by both he and the publishers of this magazine.

S. C. Buff Leghorns
Madison Square and Palace Winners
Orange Poultry Yards
MANHASSET, L. I.

*** What is your favorite breed? Just tell us all about it explaining why you believe them superior to others.

PERRY'S ROSE COMB WHITE LEGHORNS—BUFF ROCKS AND BLACK WYANDOTTES win 250 prizes State Fair, Cleveland, Hagerstown, etc, breed for eggs and beauty. Stock and eggs at low prices. Free circular.

LOUIS H. PERRY, Route No. 7, CLAY, N. Y.



Aluminum, numbered to suit, with large raised figures. Postpaid 100-50c, 50-30c, 25-20c, 12-15c. Initials extra 10c per letter per 100; 50 or less 5c. More than one initial with cut figures. Circular free giving price on Small Chick, Superior, Riveted and Pigeon Bands. Sample for stamp.

T. CADWALLADER, Box 1605, Salem, Ohio

VON CULIN INCUBATOR

The oldest make on the market. The latest up-to-date incubator. Made of sheet metal. Double and packed walls. Light and compact. Equipped with Von Culin Fireproof

Lamp. Thermometer slides through door. Price to compete with inferior makes.

Catalogue No. 14 free.

GEO. WATSON BEACH, Mfr.
126 Liberty St., New York City

JACOBUS CAMPINES GOLDEN & SILVER.

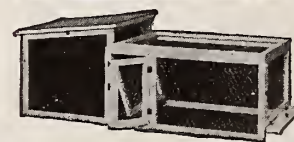


At each of the last two Madison Square Garden, N. Y., Shows, I won more firsts than all my competitors combined—February, 1915, seven firsts, January 1916, six firsts—that is, I won thirteen out of a possible twenty firsts.

At American Campine Club Show, Coliseum, Chicago, December 1915, my Silvers won first and fifth cocks, first and second hens, second pullet, first young pen. Specials, best pen, best colored male, best shaped male and best shaped female. On ten entries Golden won nine regular premiums. Let me start you right as I have others. Send for my handsome Book.

M. R. JACOBUS, Box 3-W, RIDGEFIELD, N. J.

The Common Sense Hen and Chick Coops



Strongly built, 4 ft. long, 2 ft. wide, 22½ inches high. Price \$3.75. Fireless Brooder attachment \$1.00 extra. Full line of colony houses.

Send today for free circular, full description and illustrations.

GALLANT BROS. Box J, ELMORE, OHIO

SOMETHING TO CROW ABOUT

"HEN-E-TA"

About 30% Tri-Calcium Phosphate
Popularly Called **BONE ASH**

NO OTHER BONE NEEDED | **NO OTHER GRIT NEEDED**

NO MORE BONE CUTTERS NEEDED
NO MORE BEEF-SCRAPS NEEDED
NO MORE CHARCOAL NEEDED
NO MORE OYSTER-SHELLS NEEDED

VALUABLE BOOKLET FREE
100 lbs. - \$ 2.25
500 lbs. - \$ 10.00

Balanced Ration Formulas Free

If you will give us your dealers name and address.

HEN-E-TA BONE CO.
NEWARK, N.J. DEPT. 17 FLEMINGTON, W.VA.

Forest Hill Poultry Yards Quality White Plymouth Rocks

EGGS—Fertile eggs 100 per cent fertility GUARANTEED.
Pens 1 and 2. Extra exhibition birds. Eggs 50 cents each.

Pens 3 and 4. Exhibition stock. Eggs \$5.00—15, \$8.00—30.
Pens 5-6-7-8. Exhibition stock. Eggs \$3.00—15, \$5.00—30.

You can not buy eggs from any better stock at the above prices anywhere. All unfertile eggs replaced free if they are returned express prepaid within 15 days from receipt of eggs. Our birds have been prize winners at the leading shows for ourselves and customers. Order direct from this advertisement and save time, mating list free. Send your order NOW. Don't delay.

A. G. SPAHR,

Box 1220,

XENIA, OHIO

JACKSONVILLE, FLA., HOLDS SUCCESSFUL SHOW

Success of This Year's Exhibition Leads Breeders to Prepare for Greater Show Next Year

BY WM. WEST

THE officers of Jacksonville Poultry and Pet Stock Association owing to the success of this season's exhibition are already planning for bigger things next year and have selected the week of January 25, 1917, for the next annual event.

The writer was in attendance the entire week looking after the interests of A. P. W. and he was not only surprised at the large entry of high quality stock and the large attendance each day, but also the interest the people of this section display in poultry. Nearly every one appears to have some special interest and I dare say that poultry shows are due to multiply very fast in Florida as poultry raising is beginning to be a rapidly growing industry in these parts.

In commenting on the future of the industry in Florida one of the leading dailies states:

"The leading poultry journals of the country have centered their attention on Florida as the coming poultry state, and many experienced poultry judges have expressed their confidence in the future of this section for the poultry industry. Florida is the playground of millionaires, who own the finest pets that money can buy, all of which have taken prizes at the leading shows in the east, and such a show is needed annually in Jacksonville to exhibit these pedigreed birds, dogs, cats, etc."

The show was attractively arranged and was cooped by the Keipper Cooping Company, of Milwaukee, Wisc., whose all metal cages are decidedly popular with show managers in this state as nearly the entire circuit of fairs were cooped by this concern.

I was pleasantly surprised at the quality of the birds on exhibition as I had harbored the same belief as many others that the birds in this section were inferior to those of the north, but to my surprise I found the quality of the best and many specimens, that with the proper conditioning could make an interesting contest for honors in our northern shows.

The poultry raisers in this section appear to be dead in earnest and deeply interested in the industry and when they purchase stock they have the money to buy the best. Contrary to the belief of many, poultry appears to thrive and produce well in this section and we find about the same division of varieties here as in the north.

The shows too, are conducted in the same manner and the egg laying contests are a popular attraction. Great interest centered around the one at Jack-

sonville and when the end came it was found that two pens had tied for first place. To decide the tie an accurate pair of scales were brought in and the winning pen was decided by the weight of the eggs. The pen entered by Mr. Eutenza was found to be the winner by the small margin of two ounces and the prize was a handsome silver loving cup donated by one of the leading merchants.

Plans are under way to incorporate a bench show with next year's exhibition and many dog and cat fanciers have already applied for membership. Early indications are that the Jacksonville Poultry and Pet Stock Association will stage one of the largest and best shows in the south land next year.

OWENS FARMS MATING LIST

Ninety-eight closely printed pages are required for the Owen Farms mating list for 1916. It not only describes in detail the various matings of Buff Orpingtons, White Orpingtons, White Plymouth Rocks, White Wyandottes, S. C. Rhode Island Reds and S. C. White Leghorns, but also gives prices of stock and day old chicks, and sets forth the Owen Farms guarantee which is most liberal and is aimed to give absolute satisfaction to the customers. In fact it leaves it entirely up to the customer to decide

whether or not he has had a satisfactory hatch.

Probably no other farm in the country carries on such extensive breeding operations as are carried on at Owen Farms and few if any sell more stock or eggs in the course of a year. The Owen Farms is one of the country's largest poultry farms and its business is conducted in the most up to date manner. Maurice F. Delano, proprietor gives his entire attention to the business and personally looks after all correspondence and no breeder in the country is quicker to set matters right if a customer complains than he. It is this policy that has made Owen Farms what it is today—one of, if not the largest exclusive poultry farm in the country.

SUSSEX-CAMPINES

Geneser Bros., Box W, Creston, Ohio, are among those of the eastern breeders who had the courage to send an exhibit to the great Panama-Pacific Show, at San Francisco, and on forty-four birds they won nine firsts, seven seconds, six thirds, six fourths and two fifths. This is really a remarkable record and not only proves that they have the quality but in addition it demonstrates that the Geneser stock has the stamina and vigor to withstand such a long journey and still be in condition to effectively show their quality. One thing that must be borne in mind and that is that the coast birds enjoyed a large handicap over the birds from the east as the former did not have to stand the ordeal of the long and tiresome journey. The breeding pens of Sussex and Campines are now mated and eggs are going forward daily to customers in all parts of the country. The free mating list will give full description of each pen also prices of eggs and breeding stock. It's yours for the asking.

*** If you like A. P. W. tell your friends about it. Let them share some of the good things.

*** What has been your experience in buying hatching eggs? Baby chicks.

ORCHARD FARM REDS

Look up our complete winnings at Pittsburgh and Madison Square Garden and write at once for mating list.

ORCHARD FARM,

NOROTON HEIGHTS, CONN.

RICHARDSON'S S. C. BUFF LEGHORNS

BRED TO WIN AND LAY
Records Prove THAT THEY ARE DOING IT

Eggs for hatching or stock. ALSO BUFF ROCKS. I can please you.
SQUARE AND HONEST DEALING WITH ALL, MY MOTTO.

H. G. RICHARDSON,

ETRA, N. J.

IMPERIAL SINGLE COMB REDS

STOCK

EGGS

CHICKS

HEAVY
LAYERS

Large, dark, rich, even colored birds, winners at Buffalo, Rochester, Syracuse, Auburn. Write for mating list.

IMPERIAL RHODE ISLAND RED FARM,

IRONDEQUOIT, N. Y.

PARKS' BRED-TO-AND-DO-LAY

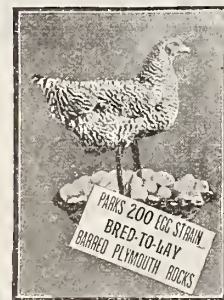
Barred Plymouth Rocks

Are America's oldest and Greatest Laying Strain. In fact they are are conceded by such men as Grant M. Curtis, Dr. Woods, Judge Schwab, Professor Morrison, Wm. Denny and others to be the daddy laying strain of them all. Today they have to their credit individual records up to 290 eggs. Sworn continuous laying records up to 148 eggs. Small flock averages up to 242 eggs. While a flock of 128 averaged 208 eggs and better still they just proved their Official Laying Capacity by laying more eggs in the last Missouri Laying Contest than any other breed entered. (The Famous English Leghorns included). Not all at the sacrifice of standard qualities, as our winnings of 18 firsts and seconds and four American Barred Rock Club Specials at Elgin, Ill., Utica, N. Y., Youngstown, Ohio, Wheeling, W. Va., and Altoona prove. Eggs—Selected \$5-15; \$8-20; \$11-50; \$20-100. Selected Utility \$2-13; \$6-45; \$12-100. Chick and egg circular free. Large 40 page catalog a dime.

J. W. PARKS,

Box W,

ALTOONA, PA.



FERNBROOK WHITE WYANDOTTES

Won at the Great National White Wyandotte Club meet at Buffalo, best display by more than double the points scored by our nearest competitor. Winners at Boston, 1915 and 1916. Also winners of all blue ribbons at six other prominent shows in the last two seasons. A few choice breeding cocks, hens, cockerels and pullets left for sale.

Eggs from the ten finest exhibition matings we ever put together \$5 per 15, \$9.00 per 30, \$13 per 45, \$25 per 100. Utility eggs \$8 per 100. It will pay you to send for our free 16 page 1916 mating list giving description of our 10 superb matings, winnings, illustrations, etc.

FERNBROOK FARM,

Arthur C. Bouck, Mgr., Box C, Menands Road,

ALBANY, N. Y.

"THE FEED QUESTION"

Among the real factors that spell success or failure in the poultry business, probably the feed question is the most constant, therefore the most important. So much hinges, in the way of results upon proper feeding, that the poultryman centers his mind on it the minute the chicks are out of the shell. He wants to raise a hundred per cent hatch (but more often has to be satisfied with 50% to 75%). He also wants to mature them as rapidly and vigorously as possible, as his profit depends on just that. So he begins to read up on the relative values of various grains, meals, etc., that furnish the Protein, Fat, Fiber, Carbohydrates, etc., that are immediately available

and successful poultrymen that use it, with the results and profit they get out of it.

The Blatchford People have had 115 years experience in one family making foods for the tender digestive organs of young animals, and it shows in their products. Considering results, their Milk Mash for chicks from the shell up to three months old, is the most economical and satisfying food you can use.

TURTLE POINT FARM LEGHORNS

S. C. White, Black, Silver, R. C. White and Brown Leghorns are specialties at Turtle Point Farm, "the home of Leghorns", Saratoga Springs, N. Y. The quality of the Leghorns produced at this farm is reflected

in their winnings at such shows as Buffalo, Boston and Madison Square Garden. This farm is owned by W. H. Manning, the popular superintendent of the poultry department of the New York State Fair and the breeding operations are under the capable supervision of W. M. Anderson. The farm is ideally located for poultry raising and with the methods followed in caring for the stock and chicks only the most vigorous and healthy stock is produced. Customers may purchase either eggs for hatching or day old chicks, the prices of

which are very reasonable. They also have for sale at all times stock of either sex in each of the several varieties. A handsome and interesting catalogue will be mailed free to interested readers who will mention A. P. W. when writing.

CARVER REDS

A. A. Carver, Proprietor of Carvers Red Farm, Seville, Ohio, has been among the successful producers of Rhode Island Reds for many years as his many victories at the leading shows of the middle west will prove. As a sample of his record we will mention that he won 8 firsts, besides many other prizes at three big shows during the past season. Carvers Rhode Island Reds are range raised on a farm devoted exclusively to the variety on another farm he is successfully breeding Red Sussex and has already

made an enviable record in the show room thus demonstrating his ability as a breeder of Red varieties. We understand that Mr. Carver has some attractive bargains in stock and also a grand lot of matings in each variety from which hatching eggs will be supplied. Full information can be obtained by mentioning this paper and asking for mating list.

FERNBROOK FARM MATING LIST

Arthur C. Bouck, Manager of Fernbrook Farm, Menands, Rd., Albany, N. Y., has prepared a most interesting sixteen page mating list describing the offerings in Fernbrook Farm White Wyandottes for the season of 1916. This noted strain of whites under Mr. Bouck's management have made a remarkable show record and the better part of six pages are required to give the complete record for the years of 1914 and 1915. The list is illustrated with several unretouched photos of winnings both male and female giving the prospective purchaser a good idea of the birds in their every day clothes. Ten select matings have been made to supply the needs for their own hatching and the requirements of customers. In addition to this they maintain several utility matings from which incubator eggs will be disposed of, the prices of eggs from these flocks will be \$8 per 100, or \$1.50 per 15. Orders will also be accepted for baby chicks but as the demand is usually far beyond their capacity it is necessary to place orders early to insure delivery.

*** Patronize A. P. W. advertisers they are reliable Look up our guarantee on the first page. It protects you, you it will help them.

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and decides he will balance the ration himself. He soon gets an inkling that experience is really worth all it costs, and that the available ingredients are not always available in the quantities he uses. By this time he is looking around for an available feed already balanced and always available.

There is such a feed that we can personally recommend manufactured by the Blatchford Calf Meal Factory at Waukegan, Illinois, called BLATCHFORD'S MILK MASH. Write them, mentioning A. P. W. and get their free circulars and prices.

If the cripples are culled out the first day out of the shell and laid aside, BLATCHFORD'S MILK MASH will raise the rest of them in record time. There is no other feed like it, and it is made from BLATCHFORD'S Steam Cooked CALF MEAL, a perfect milk substitute, and raises milk fed chickens. There is no bowel trouble, and the rapid and perfect growth of the birds amaze the old

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I am now prepared to offer a grand collection of exhibition stock, including the finest lot of breeding show females ever put on the market. Now ready to enter the strongest competition. My strain of White Leghorns have won in all the important shows in this country. The proof upon request. They will add glory to your show record and dollars to your bank account. Send to-day for circular, prices and show record.

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THE BLUE ORPINGTON

Some Facts About the Origin of this Beautiful Variety that Combines All the Good Qualities of the Older Varieties of the Orpington

By DR. J. H. PRUDHOMME, Thurmont, Md.

NOTE:—Dr. Prudhomme, although a professional man is an ardent fancier and finds time to devote to his favorites the Blue Orpingtons, the Campines and the Sussex and has succeeded in establishing flocks of each variety that have annually held their own in competition with the best productions of other breeders at some of our most prominent shows. While on one hand he raises poultry as a hobby, he has on the other, developed it into a business that not only makes it a pleasure, but one that returns a handsome profit as well. He issues some highly interesting literature that will be sent free to all interested readers.—W. A. W.

I WOULD think that everyone who breeds chickens is familiar with the Orpington variety, especially the White Orpington. To Mr. Art Gilbert a son-in-law of the late William Cook (who was the originator of the White Orpington) are we indebted for the creation of the beautiful Blue Orpington.

The breeds constituting the Blue Orpington were Black, White and Jubilee Orpington crosses. It is claimed that a blue chicken cannot be made without some red being infused into them to make permanent color. This may be true in regards to chickens but Mendel has proven that in pigeons a Black Barb mated to a White Fantail will throw black and white, and white splashed birds, and when two of the latter black pigeons are mated the outcome will be nine blacks, three blues and four whites. Here the blue color is obtained without the infusion of red. Now, be this as it may we now have the Blue Orpington in chickendom, thanks to the creative genius of Mr. Gilbert.

Besides the Blues there is the White, Black, Buff, Pile, Cuckoo, Jubilee and Partridge, as well as the Barred and Red Orpington. Probably the Pink and the Green will come after a while, who knows? Not later than the other night I was reading of a gentleman who had produced different colors of cotton and who was now experimenting to obtain a black cotton, why not pink and green in chickens? I fancy the color blue, as it resembles somewhat lead color and in this degree does not show dirt so much as the snow white. Then blue is a popular color, very few of the feminine sex there are who are not enraptured with the color blue. Hence, kind reader, should you want to please your wife give her some Blue Orpingtons, stock or eggs.

The Blue Orpington is supposed to be possessed of better type than any of the other varieties. Being fully aware of the gravity of this statement and somewhat timorous of having visited upon me the wrath of the "oi polloi" breeders of Black, or Buff or White Orpingtons. I'll nip them off in the bud by humbly submitting the following which attest to the popularity and outstanding type of the Blues. "At the Crystal Palace Show, London, England, (way back in 1911) there were about 20 Blue Orpingtons shown and the Blue Orpington pullet won the championship for the best bird in the show. This is no. 1. In 1912 at Dairy Show, England, there were 70 Blues exhibited, at the Crystal Palace 120 Blues were shown and again a Blue Orpington won the championship for the best bird in the show. This is No. 2. Not so bad, Eh? Now, at the Dairy, 1913, about 120 Blues were exhibited, Crystal Palace responding bountifully

with 220, and once more a Blue Orpington won the championship for the best bird in the show, and there were more blues shown than any other of the varieties of Orpingtons. No. 3, the third time the Blues hit the bulls eye. At the Dairy in 1914, there were over 100 Blues on exhibition, and there were more Blues in the Orpingtons classes than in any other variety of Orpington. For 1915 and '16 with the war being on I have no records. So much for the Old Country, now what for America?

We find that in 1911 and 1912 season at Madison Square Garden, 10 Blue Orpingtons were shown. In 1912-13 over 60 Blues were exhibited and 24 appear at Boston. In 1913-14 at the Garden

there were 109 Blues and at Boston, 54 while at Chicago, 30 Blues were exhibited. Ample proof of their growth and popularity.

It is hardly worth while to go into the general qualities of this grand breed as most every one is cognizant of type and breed characteristics, and readily recognize in the Orpingtons splendid table qualities combined with abundant egg yield, as the Orpingtons are known to be good winter layers, thus turning out this culinary luxury when eggs are scarce and high. I believe eventually the Blue Orpington will become as popular as the White Orpington and exceed the other varieties in numbers bred. However, there are surely abundant color patterns offered to us in the Orpington variety, and as tastes differ, in the varied assortment of plumage, anyone fancying the Orpington type and qualities can readily select the color of plumage most suitable and then champion the same by breeding "World Beaters".

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In the hottest competition and largest class of Minorcas that has ever been exhibited at the Garden, we won the following: Cocks 2nd, 3rd, 5th; Hens 1st, 2nd, 3rd, 5th; Cockerels 1st, 2nd, 3rd; Pullets 1st, 3rd, 5th; Pens 1st, 2nd, 3rd, 5th, also the following cups; cup for best colored male, cup for best colored female, cup for best male in head points, cup for best display and cup for largest entry and out of 31 cash specials offered we won 17: a record that we believe has never been approached by any Minorca breeder at the Garden. Write us your wants. Our handsome catalogue will be mailed upon request.

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The Mann Bone Cutter has an automatic adjustable feed, a feature not possessed by any other machine, and it cuts green bone perfectly. There are no splinters or chunks or gristle left in food that has gone through a Mann cutter.

Feed this food to your flock and you will have a goodly number of eggs to sell at all seasons. Hens are not natural vegetarians—you cannot expect them to lay eggs unless you provide them with a meaty, egg producing food, ground fine to their liking. Ask daythe F. W. Mann Co., Box 355, Milford, Mass., for full information.

BAKER'S BUFF ROCKS

The mating list of Baker's Buff Rocks is a most interesting one and in addition to a description of the matings for 1916, contains much other information relative to this prize winning strain. The illustrations are interesting and well placed and indicate that Mr. Baker is not alone the only fancier of Buff Rocks in the Baker family. That the Baker Buffs have the desired standard qualities is proven by their past achievements in leading shows. During the past season they had the honor of winning at both the Madison Square Garden and Panama-Pacific poultry shows a record few fanciers of any variety can boast of. At these two shows, Mr. Baker's winnings included besides many other prizes, first cock, and champion male at the Panama-Pacific and first pullet at the Madison Square Garden Show. Full details of both winnings, may be had by addressing, C. R. Baker, Abilene, Kansas and mentioning A. P. W.

SUSSEX CLUB MEETING

The annual meeting of the Sussex Club

of America was held during the Coliseum Chicago Show. A. A. Carver, Seville, Ohio, acted as Secretary of the meeting. The following officers were elected: H. H. Coburn, Pres.; A. C. Williams and Robt. Essex, Vice Pres.; F. L. Platt, Sec'y-Treas. The Executive Board composed of the following well known breeders was re-elected: A. A. Carver, Dr. E. K. Conrad, Len Rawnsey. A report of the meeting has been published and is now being mailed to members of the Club. This report which contains a complete list of all members, can be obtained by addressing the Sec'y, F. L. Platt, Swanton, Ohio. The report shows the Club to be in good condition, and the membership roll shows an increase of 400% in the last year. By vote of the Club the next annual meeting will be held in connection with the Greater Buffalo Show, Thanksgiving week, Buffalo, N. Y.

COLES BUFF PLYMOUTH ROCKS

The twenty page mating list for the season of 1916, issued by F. C. Cole, Van Wert, Ohio, should prove of interest to all breeders of the Buff varieties. It is printed on highly calendered paper in two colors and is well illustrated with halftone reproductions of many of Mr. Coles winners. He has made ten matings of Buff Rocks for the season of 1916 and prices of eggs range from \$1.50 to \$10.00 per 15. He also has a few selected matings of S. C. Buff and White Leghorns. He has a very liberal guarantee,—one which insures full value for the customer in every instance. Facts concerning his stock and prices of same are clearly given making it possible for the purchaser to clearly understand what to expect for a certain price. Copy of this list will be mailed free to all A. P. W. readers who mention this magazine when writing.

WHITE WYANDOTTES AND LIGHT BRAHMAS

Saunders and Williams, Ingersoll, Ont., Canada, breeders of the premier strain White Wyandottes and Light Brahmata are now sending out their 1916 circulars giving show record, list of matings and egg prices for

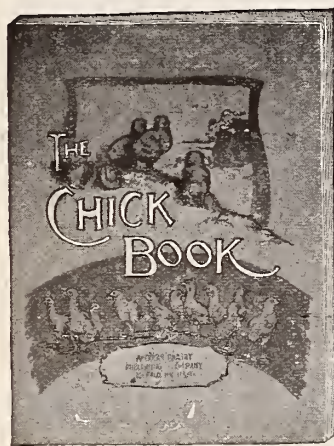
the season. In White Wyandottes they have made twenty matings, every pen of which is headed by a Madison Square Garden, Boston or Guelph winner. Their recent purchase of the entire flock of White Wyandottes of Joseph Russell, Toronto, Ont., puts them in possession of a long list of prominent winners, that are probably equalled by few if any breeders of this variety in the country. Their Light Brahmata are also of the same high quality and like their Wyandottes have a long and successful show room record. A page devoted to testimonials tells how well these breeders satisfy their customers both in Canada and the United States. A copy of the list will be sent to all upon application if this paper is mentioned.

FROM SHELL TO THE SHOW ROOM

The above is the title of a most interesting and valuable booklet being sent out by the Aldrich Poultry Farm, 4044 North High St., Columbus, Ohio. This booklet tells in detail just how Aldrich White Orpingtons are cared for from the time the egg is set until the chick is matured and reaches the breeding pen. It includes care of breeders, mating, hen hatching, incubators, brooders, conditioning and washing for the show room, in fact nothing is overlooked. The reader is taken step by step through the entire course in breeding, growing, and showing White Orpingtons on this well known farm. While the book is designed chiefly as a help to breeders of White Orpingtons, there is much valuable information that will prove helpful to all. We urge readers of A. P. W., breeders of White Orpingtons in particular, to send at once for a copy of this booklet. It gives facts that have only been acquired by years of experience and careful study in producing White Orpingtons of superior quality.

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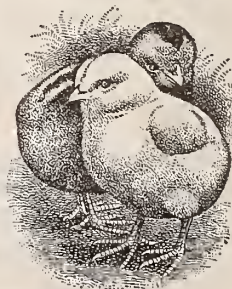
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SHADE AND GREEN FOOD FOR CHICKS

(Continued from page 451)

will eat, in a wire covered pan to prevent their getting in it, and each day I furnish them a gradually increasing amount of green stuff of some sort. I usually use sprouted oats, cutting the green tops short and not giving them the hulls. I have used both a regular heated sprouter and a box of my own design for this and find little difference if the cellar where you keep it is not too cold. I use a box with several large nail holes punched through to insure that the water drains off freely and after first soaking the oats twenty-four hours, place them in an inch layer on the bottom of the box and wet with luke warm water and throw a wet burlap sack over the top of box for several days, wetting the oats each day. I keep the box on the cellar floor, near the furnace, and find that the water running through will practically stop all moulding.

I also, on this farm, raise a quantity of mangels and I find that baby chicks will thrive on them, if they are cut very fine through a machine. Later in the season, when weather permits, I find that by putting a wire netting over a frame of seven inch boards, on edge, and planting oats freely under it, will furnish a large amount of young green stuff, and the chicks cannot scratch it out. This plan has the advantage of being usable in a small plot, where the chicks are running.

In the matter of shade I have so much room here that I do not need to provide much, though I grow sunflowers for that to some extent.

Where it becomes necessary to furnish shade and looks do not count, there is nothing better than burlap sacks tacked to the tops of two foot stakes well driven into the ground. Another thing I have found very good is the common castor oil plant. These can be started in a seed bed and when six or eight inches high, transplanted to the place where you want them. Put them from 16 to 20 inches apart. In good soil these plants will grow six to eight feet high and their very broad leaves furnish lots of shade. It will be necessary to keep the chicks away from them until they get a good start, but then the leaves become bitter and most animals will not touch them.—Theo. Poole.

Sprouted oats and essex rape favored for green food by George Rex, Slate-dale, Pa., breeder of Buff Leghorns, who adds that Sunshine, Shade, Green Food and Cleanliness are necessary to raise good Buffs.

THE four main things to provide to raise strong, healthy, good colored Buffs are Sunshine, Shade, Green Food and Cleanliness. See that your pens are built in the proper place so that you get every bit of sunshine possible, I have my pens on a five foot concrete wall. In bad weather I keep my young stock cooped so they will not get their feathers soiled. I keep the youngsters in the lower part of my pens and the old fowls are kept on the upper floor with yards at the back. In nice weather I give them free range.

See that your stock has plenty of

shade as this is very important in hot weather. Put down some peach, plum, or apricot trees. If you live on a city lot with no room to plant fruit trees, plant a grape vine or honey suckle at the end of your runs, run it up along the side and over the top as this will give you good shade.

Green food is also very important. In the spring I feed sprouted oats to my chicks as early as they commence to eat and as much as they will eat, but no more, see that they eat everything you give them so that the food you supply will not go stale or waste. As early as the ground is warm I put down a patch of essex rape which I consider one of the very best green

feeds to supply to growing stock. My stock is raised on free range and have clover and fresh flowing spring water before them all the time, but when I come with a bucket full of finely cut essex rape they will clean it up in short order. Lettuce is another very good green food for growing chicks. About the middle of June I sow endive seed and raise my own plants, by the second week in July I replant these and this gives extra fine green food for pullets when they are put in winter quarters. Endive can be kept till the middle of December, by covering it on cold nights with burlap bags or an old piece of carpet. I feed mangels, beets and cabbage in winter. Now as to cleanliness this is the main

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J. G. Oelke, Raspeburg, Md., writes: "Am using the Old Trusty now four years and it is just as good as the day I received it. Am well pleased. Have hatched about 2000 chicks with it and can honestly say that I haven't lost 30 chicks in the four years."

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point in raising good colored Buffs I like a ground floor, see that this is kept clean and fresh do not let your birds get their feathers wet and mussed up as this will bleach their feathers and oftentimes turn flight feathers white. It is not as hard a matter to raise nice even colored Buffs as it is to breed good type and sound colored tails. Do not breed to extremes I have seen birds of a very dark shade win the blue in some of the larger shows. Buff is Buff and not Red, Lemon is the other extreme by breeding too soft a shade you get white and lose your rich even color. Let us all strive for a rich medium shade of Golden Buff.—George W. Rex.

—o—

Lettuce, Rape, Brussels Sprouts all find a place in the methods of W. S. Stuver, Wadsworth, Ohio, breeder of Speckled Sussex.

AFTER my chicks are hatched I remove them to a brood coop, made of a store box, 2½ feet by 3 feet, with a sloping roof put on hinges so I can lift it to clean it out. I have runs three by five feet by 18 inches high made of one inch mesh poultry netting. This I do to protect them from cats and rats. The top is covered with two inch mesh netting, top is also covered with grain sacks or any old burlap. This makes a nice shady run and can be moved from place to place on the lawn for green feed.

I keep them in these runs until large enough to be out of danger of cats and rats, then I transfer them to a farm where they are raised to maturity. I do not feed until forty-eight hours old, first feed is fine sharp grit, next feed is steam cooked chick feed. The best I ever feed for green feed when I have no lawn runs is lettuce which I sow in the fall and when the warm sun comes on in the early spring I soon have nice tender lettuce for the little chicks. I also sow rape which makes a very good feed and lots of it, but I find the best of all is Brussel Sprouts. You sow the seed in the spring and about June first transplant the plants in rows about 2½ feet apart, when about two feet high I start to pull the leaves and feed the chicks and they certainly relish it. This plant grows very fast and is a specie of the cabbage. Last season I kept track of a brood of twelve of my Speckled Sussex fed the same as I described above and when four months' old they weighed four pounds, that is making one pound a month. I also fed green cut bone twice a week during this test. Whatever you do, do not feed your chicks too young.

I always hatch all my chicks by hens and when hatched I can raise most all of them in feeding the way, described above.—W. S. Stuver.

—o—

W. M. Anderson, Manager of Turtle Point Farm, Saratoga Springs, N. Y., breeder of S. and R. C. White, S. and R. C. Brown, Black and Silver Leghorns gives a detailed description of the methods employed in supplying shade and green food.

THE problem of supplying necessary green food is often a serious one with the average poultryman, especially when he has quite a flock on limited

range in cities. Even with us on a 200 acre farm, we find that we have constantly to plan on a supply of some sort of green food for the birds.

Our method of supplying green food for the younger chicks is as follows: Early in September we decide on what section of the farm we will rear the chicks next season and plow this section and sow with rye. The rye attains quite a growth before the cold weather sets in. Sometimes during the winter when conditions are favorable we move our colony houses on this section of ground while it is frozen, thus causing no injury to the crop. Our colony houses are of the gasoline and coal stove brooder type of which we have about an equal number. These houses average about eight feet square and are on hard wood runners. We select a time for moving the houses when the ground is nicely covered with snow to the depth of three or four inches. They are then moved with no difficulty and one man a team or even one horse can do the work. I wish to say in this connection that I do not consider a house eight feet square large enough for a coal stove brooder but owing to conditions on the farm, such as going through gates, between

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ST. LOUIS, MO.

buildings and up quite a steep hill we could not build them larger due to the extra weight.

The houses when placed on the young crop of rye are at once leveled and made ready for brooding. The little chicks when too young to be let out of doors may be fed sprouted oats, onions or lettuce. Personally we find onions very satisfactory. I often pull up a handful of the young rye and throw that in the houses after the chicks are a few days old, if the weather conditions are not favorable to let them out doors. When the chicks are of sufficient age and conditions are favorable they are let out in small runs at first, which are gradually enlarged as the chicks grow older. They find the young rye excellent food and eat heartily of it. Should the rye attain too much growth and become coarse, one can simply mow same and a fresh stand will come on. Other grains can be sown in the place of rye, but as rye will winter very nicely with us we favor it. Oats sown early will make excellent green food for the later chicks. If the chicks are to be confined rather closely and they keep the rye well eaten down, one may fence off a portion allowing it to attain a nice growth and then turn the chickens to this section and fence off the portion they have been feeding on allowing this to attain a fresh start.

In small yards in the villages it is difficult to plow or even spade up sufficient ground for the sowing of some grain. In this instance I would recommend that one procure a small box of any dimensions in length and width and of a height of about five or six inches. Bury this box in the yard so that about an inch stands above the level of the earth. Fill this box with good soil and sow oats, rye or any suitable plant rather thickly. Then over the top of the box nail small mesh wire securely. Wet the box regularly with a sprinkling can. When the plants attain sufficient growth to project above the fine wire netting the birds can feed on the young sprouts, but cannot injure the roots and are limited to the amount they can eat thus allowing a steady growth.

I have seen small yards in villages spaded and sown to rape early in spring and by early summer the plants will have grown three, four and even five feet in height. The youngsters are then turned in to this yard and invariably will work their way between the plants and feed on the lower leaves and leave the upper portion of the plant growing which furnishes good shade. I would suggest that sunflowers be planted sparingly throughout the yard which will furnish even greater shade. In small yards where the sun becomes very hot during the summer I have planted climbing cucumbers around the fence and allowing them to climb the wire and if yards were narrow the vines, will, if given a chance, grow over the top and across to the opposite fence, if provided with strings, wire or netting. The cucumbers should be planted quite thick.

Shade with us is well provided by nature and abounds all over the farm. Annually we rear many of our chicks in rather low land that is springy and wooded. We find that chicks grown on this damp land, contrary to the idea of many, do remarkably well. They mature

with richer color and more gloss and sheen to their plumage. Further the springs provide ample water and no attention along this line is required. Practically all of our yards for mature birds are planted with fruit trees which give good shade. When one desires his shade from a tree I know of no better tree to plant than the poplar which in even two years time will provide much shade as the tree grows very quickly, though I believe it is rather short of life. Many provide shelter from the hot rays of the sun by making burlap frames or frames covered with straw, hay, etc., but I much prefer tall plants such as sunflower or corn. A field of corn will in the early summer provide excellent shade and protect chicks from hawks, crows, etc. Many feed lawn clippings, to stock that is confined without access to green food. I have tried this but find that birds do not take as readily to the clippings as to green food growing in its natural state. For some reason they seem to prefer to do their own picking.

Early in the summer we plant a small acreage with mangels, beets and carrots to provide green food during the win-

POULTRY LESSONS FREE to buyers of Incubators, Brooders. Big 1915 Book sent FREE for a postal. Don't buy any incubator until you write to **DES MOINES INCUBATOR CO., 27 Second St., Des Moines, Iowa**

White Cornish

MOUNTVILLE FARMS,
Pine Road, Loudoun Co. MOUNTVILLE, VA

HERE IT IS FOR \$4.00



A GREAT BIG HAND GRINDER

that will save its cost several times a year and will furnish one to two bushels per hour of fresh ground corn, oats, peas, dry bone, oyster shells, nut shells, dry stale bread, etc. for poultry feed, or will grind table meal for family use.

A child can operate it. Thousands sold annually. Shipping weight 40 lbs. We also build a full line of Power Feed Mills, San-son Wind Mills, Gasoline Engines, Hardware Specialties. Ask for Catalogs, stating line in which you are interested

Stover Mfg. Co., 321 Plymouth St., Freeport, Ill.

SUSSEX

Eggs and stock for sale at all times. If you want a money maker and the finest table fowl known to mankind try Sussex.

RED JACKET POULTRY FARM, W. M. Patteson,

PENN YAN, N. Y.

WHITE PLYMOUTH ROCKS COCKERELS and PULLETS FOR SALE

Eggs after February 1, from six fine pens at \$1.50 to \$3.50 per setting. Winners at State Fair, Cleveland and others.

THEO. L. POOLE,

BOX F,

DEWITT, N. Y.

LENROC REDS

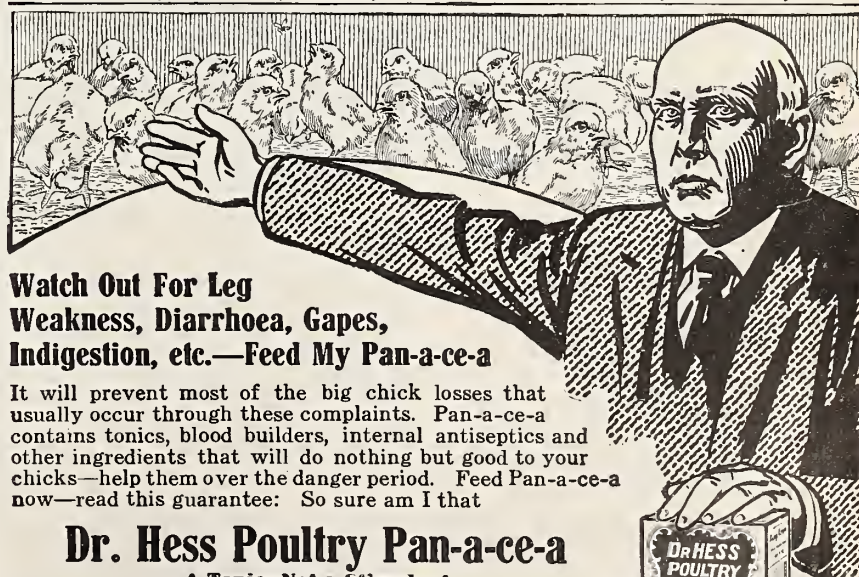
Are now mated for the season of 1916 with the following winners heading the pens:—Pen No. 1, "Palace King" first cockerel and color special Palace, New York Show in class of 56. Pen 2, Frisco, second cockerel at Panama-Pacific Exposition in class of 64. Eggs from these mating \$15 per 15. Also two grand pens of Rose Combs consisting of a number of prize winners. Eggs \$10.00 per 15. For description of either matings send for free mating list.

HOUCK & ALT,

HENRY ALT, 87 Fuller St., Buffalo, N. Y.

BUFFALO, N. Y.

JNO. E. HOUCK, Black Creek, Ont.



Watch Out For Leg Weakness, Diarrhoea, Gapes, Indigestion, etc.—Feed My Pan-a-ce-a

It will prevent most of the big chick losses that usually occur through these complaints. Pan-a-ce-a contains tonics, blood builders, internal antiseptics and other ingredients that will do nothing but good to your chicks—help them over the danger period. Feed Pan-a-ce-a now—read this guarantee: So sure am I that


Dr. Hess Poultry Pan-a-ce-a

A Tonic—Not a Stimulant

will help your chicks grow—help them safely to maturity—help to make your poultry healthy and your hens lay—that I have told my dealer in your town to supply you with enough for your flock, and if it doesn't do as I claim, return the empty package and get your money back. Pan-a-ce-a costs 1c a day for 30 fowl. 1 1/2 lbs., 25c; 5 lbs., 60c; 12 lbs., \$1.25; 25-lb. pail, \$2.50 (except in Canada and the far West).

If not at your dealer's, write

DR. HESS & CLARK, Ashland, Ohio



GILBERT HESS, M. D. D.V.S.

ter. Mangels prove excellent for this use. They are easily grown and a large yield will result from a very small patch. Carrots are relished by our birds and they are also very fond of the red garden beet used on the table. These are fed during the winter by simply sticking same on a nail in each pen. If the weather is severe so that the beets will quickly freeze use a root cutter which cuts the beets in strings resembling excelsior. These cutters may be obtained from supply houses at a small cost. This enables the birds to consume the green food before it is frozen. Avoid feeding frozen beets as disastrous results may follow. If one feeds a wet mash the



Miss Nowaday one of the quality productions of Engers Barred Rock Farm, Bedford, Ohio. While Mr. Enger does not exhibit as extensively as some breeders he nevertheless produces many of the winners at prominent shows each season. The fact that Enger Barred Rocks in the hands of customers are bringing home the coveted prizes accounts for the success of this Barred Rock Farm, where quality is first, last and all the time. Mr. Enger has several choice matings for the season's egg trade and invites correspondence from all readers interested in Barred Rocks of the better kind.—W. A. W.

shredded beet can be mixed with the mash. I have several times tried feeding sprouted oats, but I never met with much success, due probably to the fact that we have no place suitable for sprouting the grain as same requires a rather warm room. Further I am confident that the cost of sprouted oats is far in excess of beets, mangels, etc.

Many feed a variety of vegetables either raw or cooked in a mash such as potatoes. I believe, however, that the feeding of apples is not advocated by those who have fed them. The reason for this does not seem to be clear.

For summer-green food I truly believe that the right variety of rape is the best green food procurable and allow the birds to pasture on same. For winter use the mangel is the most used. Onions are excellent but, of course, expensive. Cabbage is often used during the winter, but we have found that it is not as sure a crop as beets and that beets will yield much more food per acre. Also with us beets are preferred by the birds.

In conclusion I must say that those that are provided with plenty of range

through which flows a clear cool brook and which is covered with a goodly portion of shade are to be congratulated. Under such conditions one raises poultry in direct accordance with nature's intentions. Those in the villages and cities are thus handicapped and will find the planting of plants as outlined above of much aid in growing husky birds that will prove profit producers.—W. M. Anderson, Mgr. Turtle Point Farm.

—O—

Elton C. Mahon, Buckeye Specialist, Norwood, Tenn., prefers a cornfield for shade and sows oats and rye for early green feed.

As to my method of supplying green feed and shade for little chicks during the spring and summer will say that I have my colony houses located in an orchard field. The trees are wide apart which enables me to plant the ground to any crop I see fit. In October each year this ground is thoroughly broken and prepared and then sowed to Winter Oats and Rye.

When my incubator chicks begin coming off in January the oats and rye are in a tender stage, in fact the oats are kept down pretty close all along by the

Prepare For War On The Drones INSTALL



TRAP NESTS

Show which hen laid the egg. Easily used where others are impossible. Write now for prices and proof to

F. O. Wellcome, Box W, Yarmouth, Maine

HAYNER'S BARRED PLYMOUTH ROCKS

S. C. R. I. REDS.

Winners wherever shown. Look up our Central Palace winnings, they are interesting. Bred to lay large brown eggs.

WRITE FOR PRICE LIST

H. W. HAYNER, Prop. JONAS HAYNER, Mgr
LIVINGSTON, COL. CO., N. Y.

MOORE'S SINGLE COMB WHITE LEGHORNS WINNERS AT THE LEADING SHOWS

Cockerels, \$5 and \$10 each.

Pullets, \$3 to \$10 each.

EGGS—Selected matings, \$2.00 for 15; \$8 for 100. Special matings \$5 for 15. Winning and exhibition birds. Improve your female line by birds or eggs from our yards.

MOORE BROS.

MOSCOW, N. Y.

BEAN'S COLUMBIAN ROCKS

Their Show Record Proves Them the Champion of Champions

SPECIAL BARGAIN SALE

On account of hard times and high cost of feeds I am forced to dispose of a large number of strictly high class birds. This is your chance to start with a popular breed that answers all the requirements of an all around fowl. Great winter layers. Unexcelled for their beauty. 20 Breeding Pens \$12.50 per pen. 20 Breeding Trios \$8.00 per trio. Order direct from this "ad."

FRANK G. BEAN,

COLLEGEVILLE, PA.

The PRAIRIE STATE
1916 CATALOG

Get This •FREE Book—Sure

Here is one Incubator Catalog you can't afford to overlook. No matter how many others you write for, be sure to get this one, too. It will show you why some incubators spoil half the eggs or more—why others don't raise strong, healthy chicks. It also explains just why the famous

PRAIRIE STATE INCUBATORS

"Hatch the Most Chicks That Live"

Tells all about the wonderful moistened Sand Tray—the Eddy Current Ventilating System—and other exclusive features which have made Prairie State machines famous the world over—

Leaders for 35 Years—A postal brings you this big book, free and postpaid. You will be glad you sent for it. Prairie State Incubators and Brooders are used and endorsed by Poultry Experts and Leading Agricultural Colleges the world over.

PRAIRIE STATE INCUBATOR CO., 202 Main St., Homer City, Pa.

Write
for Free
Catalog

Genesee Cooping Company THE ALL METAL SANITARY COOP.



GEO. W. WEBB, Mgr.

Poultry Associations and the poultry press pronounce the Genesee system of cooping the most perfect in every detail. Write for photos showing the largest shows in the country in operation. Before contracting for next season's cooping get our estimate on shows ranging from a minimum 500 coops and upwards. Good second hand exhibition metal coops for sale as well as new ones.

ROCHESTER, N. Y.

chicks as they seem to prefer the oats to the rye and in this way they never get coarse or old. The first dry spell in March after the spring grass has come up I turn this winter top crop under for fertilizer, using a two horse plow and following the two horse plow with a ten inch shovel in the same furrow. This breaks the ground close and deep. After this green top crop has been turned under about three weeks the ground is ready to plant. I plant the field then to corn. Leave the corn fairly thick in the drill and cultivate it until in June we work it the last time. There is always plenty of grass around the edges of the field for the chicks and they follow the plows while the corn is being cultivated and catch the bugs and worms. Before the hot days of summer comes on the corn is sufficiently high to give plenty of shade so in this way all my incubator hatched chicks have free range, sunshine, shade and green feed.

I always have some pedigreed chicks which I take from the pedigree trays in the incubator or hatch with hens, which I raise mostly with hens. I use coops about twenty-four inches square with yards attached for the hens to sit in. About ten days before the chicks are to hatch I dig up the ground in this little run and sow it very thick in oats, wheat or rye. When the chicks come off this grain has sprouted and the tender sprigs have appeared on the top of the ground. The little chicks soon begin to dig and keep interested until they are large enough to be turned out. I also have large runs for my breeding stock which are also planted to wheat, rye and oats early in the fall which furnishes plenty of green stuff for the breeders all through the winter.

I use a few sprouted oats but it is not necessary to bother much with sprouted oats as I manage to have other green stuff which is practically the same but less trouble. I do not attempt to raise chicks by the thousands, but each season raise several hundred strong healthy Buckeyes which find homes in all parts of the country at profitable prices.—Elton C. Mahon.

CHICKS THAT LIVE

Eggs that hatch and chicks that live are the points that U. R. Fishel, Hope, Ind., strongly emphasizes in his advertising. He says "I guarantee my my mated eggs something no other White Rock Breeder has ever dared to do". He feels safe in doing this as his birds are reared and bred on practically free range, a condition that insures eggs of high fertility and strong germs that develop into husky chicks. Full particulars concerning the methods of care and management of these noted White Rocks may be had by sending for the free mating list for 1916, which describes what Mr. Fishel pronounces the finest matings he has ever owned in his twenty years experience as a breeder of this variety. In addition he can furnish selected breeding or utility stock and has over 2000 head to select from. If you write him today he will be only too glad to explain what he can do for you and will also send his literature free. Just address, U. R. Fishel Box B, Hope, Ind.

100 PER CENT FERTILITY GUARANTEED

That is the guarantee that accompanies eggs from the Rancocas Mills, N. J., according to their advertisement in the March issue of this publication. Rancocas S. C. White Leghorns are well known both for their show room quality and for their ability as egg producers, as the Rancocas Farms bears the distinction of being the only farm in the world to produce more than one million eggs in one year from their own flocks. The system of handling the birds insures practically free range the entire year, a condition that not only adds health and vigor to the birds but also insures the production of eggs of high fertility and strong germs. That is why the unusual guarantee of 100% fertility is made. Rancocas day old chicks are also of the live and grow kind and are all produced from egg bred Rancocas White Leghorns right on the farm. When you order eggs of chicks from this farm you have the assurance of getting just what you order whether it be ten or ten thousand eggs or chicks. They never call on outside sources and no order is too large or too small. Each will receive the same careful attention and the same degree of satisfaction will be had with each.

*** What has been your experience in buying hatching eggs? Baby chicks.



The above illustration shows a corner of the duck yard at Rosemont Farm, Franklin, Pa., and also a few of the Mammoth Pekin Ducks produced there. Rosemont Farms specialize in Pekin, Indian Runner and Muscovy Ducks and are prepared to fill orders on short notice for stock or eggs.

*** All readers are invited to write us their experiences in poultry raising. Tell us of your greatest difficulties and how you overcome them.

A. A. WHYLAND

Columbian Rock Specialist

CHATHAM, NEW YORK

URBAN FARMS, Pine Ridge, Buffalo, N. Y.

Stock and eggs for sale from our prize winning strains of White Rocks, Black Langshans, Anconas and White La Breeze. Eggs only from Black Tailed White Japanese, Mille Fleur and Silkie Bantams and Tom Barron's best strain S. C. White Leghorns and White Wyandottes.

1916 MATING LIST NOW READY

RESSEGUIE'S BARRED ROCKS

Make a wonderful record at the Greater Buffalo Show, Thanksgiving week as follows; 1-4 cockerel, 1 pullet, 2-4 cock, 2 hen, 2 pen old, Best display. If you are looking for Barred Rocks of quality, birds with both the winning and laying habit let me help you out. I have cocks, cockerels, hens or pullets of the same high quality as above winners that I will sell at reasonable prices. Tell me plainly what you want, I can help you.

L. B. RESSEGUIE,

MILLERS, N. Y.

LAY-EGG-HORNS

This is a fitting name for our single comb White Leghorns.

But why shouldn't they excel as layers? They have been bred for this title for years. Let us send you eggs and chicks from birds that have shown results—that have earned money for us, and will earn money for you. Big hardy birds bred on 100 acres of farm range.



Hatching Egg	Day-Old-Chix.	Four-Week-old-Chix.
\$6.00 per 100	\$14.00 per 100	Eight-week-old Chix.

WRITE FOR DESCRIPTIVE BOOKLET

THE PROPO FARMS

LORELEY, BALTO CO., MD.

TOMPKINS RHODE ISLAND REDS
SINGLE AND ROSE COMB
HAROLD TOMPKINS,

150 high class breeding cockerels in both combs left to select from. Breeding pens and trios a specialty. Mating-list describing 16 matings containing Boston, Madison Square and Buffalo winners. Strongest ever put together. Write your wants to
Box W, CONCORD, MASS.

THE BLUE ANDALUSIAN

By Horace G. Murphy

Chairman of the Committee on Standard and Publication of the Blue Andalusian Club of America

(Continued from page 448)

says: "In 1850-1, John Taylor of Shepard's Bush, imported a dozen or so fowls from Andalusia. A few were blacks, other speckled, but of the entire number only three or four were of the much coveted blue tint. It was from these three or four birds that John Taylor produced what were afterwards described as a pure and distinct race. I remember John Taylor's fowls well, and thought then as now, that they were simply a selected variety of the ordinary fowls of Andalusia, like the Minorca or Leghorn and some others.

Of course, years of careful selecting and breeding makes slowly and in the end, but not always, produces a distinctiveness that may be admitted by some of our modern fanciers as indicative of a pure race.

"It is conceded, the author continues, that Mr. Taylor imported such birds, but before that time blacks and whites arrived, and in the west of England were kept in quality. There is no doubt whatever that these birds were bred from true blue birds. Many of these were incorporated with those of Mr. Taylor's and his imports were not, by any means, of such graceful and elegant proportion as those that have, for the time, taken hold of the Andalusian fancier of today; nor were they so likely to breed true, either to color or to the desired form. But, it was by John Taylor uniting the best of his imported birds with his original stock, that the present day charming result was subsequently obtained."

Imported to America

About fifty-five years ago, the Blue Andalusian was imported to America, and it has ever since gradually gained favor, both in Canada and in the Eastern states on account of its superior value in egg production. At first, it was not so greatly prized as an exhibition fowl, but with the production of the American type, which, to my mind, far exceeds the type of its English ancestry, the breed became celebrated as an exhibition drawing card. The illustration recently prepared by Artist Schilling under the direction of the Blue Andalusian Club of America, and descriptions of the breed in the 1915 Standard of Perfection of the American Poultry Association, portray one of the finest specimens known to the art of poultry culture.

Its Utility

The Andalusian also gained favor in England as a utility fowl long before it became known to the fanciers. Harrison Weir quotes L. Barber's statement of more than 60 years ago, as follows: "In my opinion, they (the Andalusians) are the most useful and ornamental breed of fowls, both for scientific breeder and the amateur. The eggs are equal in size and number to those of the Black Spanish. Some of mine last year weighed three and four ounces each. The fowls are also very healthy and hearty."

These valuable utility qualities of the Andalusian still obtain. I have often compared the size of the Andalusian eggs

with those of other breeds, and find it not uncommon for nine Andalusian eggs to outweigh one dozen of the Orpington. The fact that they rarely ever set also affords greater time for egg production.

The Exhibition Bird

The first Andalusians exhibited were quite different looking specimens from those that now so easily charm the fancier. It appears from the description of those early exhibits that they did not vary much in type from the old Cornish and Devon Blues. Silver Dun, the noted English author, says that they were of a distinctly "gamey" type. From the earliest time it appears that the whites and blacks were gradually discarded as show birds, until finally the blue specimens alone were exhibited, or were kept for fancy breeding purposes. "The Illustrated Book of Domestic Poultry," by John Taylor gives the first description we have of the Blue Andalusian. It

runs as follows: "Combs, large, erect and evenly serrated, cheek patch white, legs bluish; plumage grey or dove color, each feather being lightly margined with a lighter tint; hackles, glossy, velvety black, falling evenly on each side of the breast in strong contrast to the color of the latter, but full; tail carried very uprightly with sickle feathers well arched. The hens have the same colors, but pendant combs."

Our first impression is that those early specimens did not resemble those of our present American type very closely—yet, if given a forty-five degree slant to the tail and very dark lacing instead of the lighter tint lacing of John Taylor's time, this description would show as much likeness to our present standard Andalusian as would the description of any other breed of 60 years ago bear to that breed's standard description of today. But the advancement we have made has

PAULDING'S S. C. BUFF ORPINGTONS

Again prove their quality by winning at the Great Coliseum Show, St. Louis. With their previous record at the Missouri State Show and Illinois State Fair they have demonstrated that they are equal to the best. My prices on exhibition, breeding birds or eggs for hatching will interest you. Write today.

CLAYTON PAULDING,

GREENVILLE, ILL.

The Good Old Hen Watches Over Her Chicks DAY AND NIGHT?

So does the Dandy Colony Brooder—the Mechanical Mother. Mrs. Biddy may accidentally crush a promising chick now and then, but the Little Dandy never does. Costs but little more to keep than the hen and takes care of about forty times as many chicks.



The right temperature uniform at all times is what we guarantee. Besides controlling the fire in the brooder we control the surplus heat. The check valve is under the hover and when open draws the surplus heat up the stack. No chilling, no over heating, no crowding.

\$15.00 IS A SMALL PRICE

But the results you will get will be large. We are located so we can produce a brooder for this price and a good one too. Send for our folder and let us tell you why. Address Department 122.

We want hustling agents.

NORTHEASTERN MFG. COMPANY.

The Home of Better Brooders,

Keeseville, N. Y.

been very great. If such great gain has been possible in the development of the Andalusian in the past without the aid of a strong club, or any other effective organization,—with inadequate recognition in the Standard of Perfection, and with no standard illustrations to assist poultry judges in construing the standard requirements, what may we reasonably hope for now that we have the benefit of a well organized club, and have adequate descriptions and illustrations in the American Standard of Perfection.

Reports both from England and America indicate that the Andalusian is rivaling the most popular breeds, both as a utility and as an exhibition fowl. With its growing popularity in America we are all familiar. To the same effect the "Feathered World" gives testimony from England as follows: "The Andalusian is the wonder of the year, as in the whole of the Colonies it has jumped into popularity without any fuss, and without any booming in the press—a very extraordinary proceeding."

This striking statement of the "Feathered World" is prophetic of the future. The Blue Andalusian has finally come to its own and gradually as the public gains a more accurate knowledge of its superior qualities of utility and beauty, it will command a still higher place in the attention of the poultry world.

A BEAUTIFUL CATALOGUE

The 1916 catalogue of the Premier Partridge Wyandottes just issued by Sheffield Farms, H. B. Hark, Mgr., Glendale, Ohio, is one of the finest pieces of poultry literature of this nature that we have seen in many a day. It is printed on a highly calendered paper with a cover in two colors and profusely illustrated with views of this noted farm and illustrations of many of their blue ribbon winners. Before further comment we wish to add that no breed of Partridge Wyandottes to our knowledge has made the show room record of this farm. It seems to be a habit with them to enter a show room and capture all the prizes competed for. It has been said by those who have visited this farm that there is little to wish for in regard to an ideal location and conditions for raising poultry. Six pages of the book are required to give the show record made during the past few seasons and all through the book are testimonials from customers telling of their satisfaction with the Premier Partridge Wyandottes, for be it known that this strain not only possesses Standard qualities to the highest degree but they also have the ability to lay eggs in large numbers, especially in the fall and winter when eggs are high in price, a most satisfactory combination and one that every poultry raiser covets. Several pages are devoted to profitable pointers governing not only the selection of a breed but also such subjects as Artificial Incubation and brooding, Poultry Houses and Fixtures, feeding, lice and mites, common diseases and their treatment, etc., etc., making it a valuable book for any poultry raiser especially the beginner. It is sent free to all who mention A. P. W. when writing.

KEELER'S WHITE WYANDOTTES

The record made by Keeler's White Wyandottes at the Chicago Show, in January, is one that would gladden the heart of any breeder and the kind of a record that all breeders hope to achieve but one that few realize. To win 1-2-3-4 cockerel, 1-2-4 cocks, 1-5 hens, 1-5 pullets, 1-3 young pens and 2-4 old pens in a class of 194 White Wyandottes is indeed a victory to be proud of and one that not only speaks volumes for the quality of the Keeler productions but also one that places Mr. Keeler in the front ranks as a breeder of this variety. A string of birds of this kind represents many years of careful breeding and study and shows the progress that he has made as a producer of White Wyandottes of superior quality. For the present season he has 16 matings from which to send you hatching eggs. These matings are fully described in his beautifully illustrated 64 page catalogue that will

be sent free to A. P. W. readers who are really interested in better White Wyandottes and will mention A. P. W. and address, Chas V. Keeler, R. F. D. 17, Winamac, Ind.

HALBACH WHITE ROCKS

By their wonderful victory at the Chicago Coliseum Show in December, the Halbach White Rocks demonstrated conclusively that they are in the Championship class. That the reader may fully appreciate the wonderful record at this show we will repeat the complete winnings here: 1-2-3 cock, 1-2-3-5 hen, 1-2-3-4-5 pullet 2-3-4 cockerel, 1-3 old pen, 13- young pen in regular prizes and silver cup for grand champion male and silver cup for grand champion female. Although the class was large there was little left for the other fellows so complete was the Halbach victory. These winners and scores of other high class specimens are now in the breeding pens that are producing the eggs for Mr. Halbach and his customers. Many of next seasons winners will be hatched from these eggs and customers all over the country will be among the fortunate as Mr. Halbach sends out eggs from the same pens as he uses himself. His mating list will fully describe these matings and his terms and guarantee.

*** What do like best about this issue of A. P. W.? Sit down today and write about it.

BRUNIG BUTTERCUPS ARE CHAMPIONS

My winnings at Chicago Coliseum Show, 1st cockerel, shape special, color special on male and 1st pen. Prove the superior quality of my stock. Write me for description. History and illustrations FREE.

Stock and Eggs For Sale.

W. C. BRUNIG, Box 403, ELKHART, IND.

LISK'S WHITE WYANDOTTES

Third White Wyandotte cock at Madison Square Garden, 1916, was hatched from eggs I sold. The sire and dam of this great bird are in my breeding pens. You can buy eggs from them and their sons and daughters and raise some of these choice birds that win for my customers at the best shows. Don't forget their great laying qualities. The dam of this bird is one of my best layers. My matings contain my line bred birds that must throw extra choice specimens and best of all they are bred for great vigor. Eggs will hatch good and chicks will live and grow. Come to headquarters. Beat the other fellow to it. Eggs from exhibition matings \$5.00 per 15, \$12.00 per 45. Heavy laying matings \$2.50 per 15, \$8.00 per 100.

FRED C. LISK

BOX L.

ROMULUS, N. Y.

**STOP
LOOK
READ**

We have recently acquired by purchase the entire flock of Manhattan Farms Campines, both colors, including their famous winners. The quality of this flock is too well known to need description here. This stock is now on our farm and we are prepared to supply EGGS, BABY CHICKS or BREEDING STOCK. More than 500 head to select from. Some rare bargains. Write us for full information. We can save you money.

McDONOUGH & BIDWELL,

Box W,

NEWARK, N. Y.

Which way do you work your garden?



The old
back-breaking
way?

OR

The easy
Planet Jr
way?



The Planet Jr way takes the drudgery out of labor, and produces bigger, better crops. Planet Jr tools are the greatest time-savers ever invented for farm or garden, and the most economical cultivating tools you can use.

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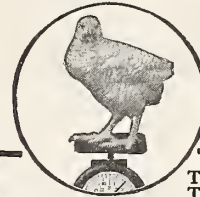
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ALMENDINGER'S R. C. WHITE LEGHORNS
Have won at Buffalo, among other prizes 1st cockerel for the past four years in competition with the best birds in America. Enough said, if you want choice birds or eggs for hatching.

A. ALMENDINGER.

61 Inwood Place, Buffalo, N. Y.



**Start
Right**

There Will Be No Bowel
Trouble When Feeding

Blatchford's Milk Mash

Raise 100% Hatch in Record Time

Don't take chick chances. After they are five weeks old, add 10% fresh corn-meal to the mash and you have the best growing food made, and you make it.

Ask us how to get 32% increased weight on your Spring Chickens in 12 days. It's a simple matter.

For sale at all dealers or

**Blatchford
Calf Meal Factory**
Waukegan Illinois

HANDLING BREEDING STOCK IN CONFINEMENT

By Homer W. Jackson

(Continued from page 449)

Answer. The writer is not able to answer this question positively, but he is of the opinion that limiting the number of hens mated to one male has very little, if any, effect on the vitality of the chicks. The physical condition of the individual male is of prime importance.

Question. How much floor space do you allow fowls in the breeding pen?

Answer. From four to six square feet floor space is allowed per bird in the breeding pen. Leghorns will do practi-



PROF. M. A. JULL

Manager of Poultry Department of MacDonald College, Quebec

Professor Jull, who contributes the accompanying highly practical article on "Management of Breeding Stock in Confinement" is taking a prominent place in Canadian poultry work and is well known on this side of the border as well. He served as assistant to Professor Atwood, at the West Virginia Station for one year and also had charge of poultry work in the Department of Agriculture, British Columbia, for three years going from there to MacDonald. His recent bulletin "Farm Poultry" comprises nearly 100 pages and covers the entire subject of Farm Poultry Management in a most interesting and common-sense manner.

cally as well with four square feet space as American breeds will do with five to six feet floor space.

Question. As breeders, how do well-matured pullets compare with hens?

Answer. In certain cases well matured pullets may compare favorably with yearling hens as breeders, but the writer prefers vigorous yearling hens.

Question. Do you find that pullets of different breeds mature more rapidly in northern latitudes than further south, if so, how do you account for the fact?

Answer. Owing to limited experience in the south the writer is not able to answer the question definitely. One year's experience at the West Virginia Experiment Station, Morgantown, W.

Va., two year's experience in British Columbia, and three years' experience in Quebec are not enough to allow of satisfactory comparisons in regard to the development of stock in the various sections. The writer is of the opinion that pullets of different breeds mature more slowly in Quebec than further south because of the late cold springs of the northern country. On the other hand, it has been found that pullets, particularly of the Mediterranean class, hatched in May, may be developed into good laying condition by the 1st of November.

Special Treatment for Males

After reading Prof. Jull's answers to our questions on breeding we felt confident that our readers would want more details in regard to his method of handling males, also his practice in stud mating, and immediately addressed the following questions to him, to which he replied as follows:

Question. What special steps do you take to maintain physical condition of males?

Answer. The condition of the male breeder depends upon the manner in which he is handled prior to the breed-

ing season as well as inherent factors. It is particularly important that male birds come from vigorous parentage, and they should have an abundance of vitality as evidenced by good width between the eyes, good width over the back and good depth of the body which is supported on a pair of well developed, straight legs. The eye should be full and bright and one which can observe its opponent without fear and trembling.

Male birds may be kept in good con-



TAFT WHITE ORPINGTONS

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Win at Hagerstown and Greater Buffalo. Stock and Eggs for sale. Catalogue free.

Taft Orpington Farm, Collins, N.Y.

48 Lessons In Poultry Culture

Covering every phase of poultry husbandry, each lesson complete, thorough, practical. Written by Quisenberry, the man who has done more for the poultry industry than any man in America. No matter whether you are an old hand or just beginning you will find these lessons will pay for themselves many times over. Write today for our free illustrated book, "Dollars and Sense in the Poultry Business." It tells the tale. American School of Poultry Husbandry, Box 56 Mountain Grove, Mo.



PHILLIPS PARTRIDGE ROCKS

Make a great record at Buffalo, 1915, by winning 1-5 cock, 1 hen, 1-4 cockerel, 1-2 pullet, 1 pen old, 1-2 pen young and best display. They also won best display and several regular prizes, including 2 firsts at the New York State Fair, 1915. It takes quality to make a record like this. Don't you need some of this quality? Cocks, cockerels and pullets for sale. Now booking orders for eggs. A 10 per cent. discount allowed on all orders booked before March 25th.

JAMES F. PHILLIPS,

140 Merrimac Street,

BUFFALO, N. Y.

BUFF WYANDOTTES

YOUNG STOCK FOR SALE
UTILITY AND FANCY

We won A. P. A. Grand Prize Medal for Best in American classes at last New York, Palace Show.

THEODORE S. HEWKE,

MIDDLETOWN, N. Y.

Fellows' Famous Farm Raised Buff Wyandottes

Winning at Rochester, N. Y. December 1914 best exhibit, color and shape special on pullets, 11 ribbons on 12 entries. Batavia, N. Y. January 1915 1-2 cocks, 1-3 cockerels, 1st pen and 2 hen, 2 pullet. Cleveland, Ohio, January 1915. 1st hen, 2 pen, 3rd pullet, 70 cockerel, this was National Meet of the Buff Wyandotte Breeders Club. Send for mating list. Mention A. P. W.

E. B. FELLOWS,

R. F. D. 1,

SCOTTSVILLE, N. Y.

Save Your Chicks From Lice

One of the greatest drawbacks to chick life and chick growth is lice. Once these pests get a firm hold, chick losses are sure to follow. Make your war on poultry lice before you set the eggs—sprinkle the nest thoroughly with Dr. Hess Instant Louse Killer; this will free the mother hen from parasites and tend to keep her quiet and contented.

Dr. Hess Instant Louse Killer

Sprinkle your poultry with it occasionally, also the roosts; put it in the dust bath and the hens will do the rest. Also kills lice on horses and cattle, sheep ticks, certain bugs on cucumber, squash and melon vines, slugs on rose bushes, etc. Put up in sifting-top cans. Your dealer will refund your money if it doesn't do what is claimed.

If not at your dealer's, write

DR. HESS & CLARK, Ashland, Ohio

1-lb. can

25c

3-lb. c7

60c

(Except in Canada and the far West)



WINNERS OF EVERY FIRST PRIZE AT THE PANAMA-PACIFIC INTERNATIONAL EXPOSITION SAN FRANCISCO, NOV. 1915.
FIRST PRIZE COCKEREL AND CHAMPION WHITE LEGHORN MALE, FIRST PRIZE HEN AND CHAMPION FEMALE.
FIRST PRIZE COCK, FIRST PRIZE PULLET, AND COCKEREL HEADING FIRST PRIZE EXHIBITION PEN;
BRED OWNED AND EXHIBITED BY MRS. E. B. MARTIN, DOWNEY, CALIFORNIA.

In the above group is shown the winners of every first prize in the single classes and the cockerel heading first prize pen at the Panama-Pacific Exhibition, last November. These birds were bred and exhibited by Mrs. E. B. Martin, Downey, Calif., an ardent fancier of the Single Comb White Leghorns and one who has established a line of exhibition birds that appear to be in a class by themselves. Years of careful and systematic line breeding along intelligent lines has resulted in a refinement in this strain of Leghorns that makes them stand out as good examples of present Standard requirements.—W. A. W.

dition with careful treatment when they are kept by themselves. At MacDonald College we make a practice of keeping our best male breeders in small flocks of ten or fifteen. The rest of our breeders are housed together in the cockerel pen which will contain from 150 to 200 birds. Arrangements are made so that the birds can get plenty of food at any time, and at the same time a definite system is followed in feeding from hand. We have found very little fighting when 150 or 200 male breeders are placed together, and with proper care in feeding they are handled quite successfully until the opening of the breeding season. The feed for the male breeder while cooped should be composed of certain proportions of hard grains as well as moistened mash.

Question. What is your method of Stud mating?

Answer. In regard to stud mating this is carried on in conjunction with the trap-nesting of hens. Females are leg-banded and trap-nested and at the time of relieving each hen from the trap-nest she is mated to a pedigreed male bird. The actual matings depend upon the pedigree of the birds in question. The male bird is confined in a small coop which will allow of some exercise. As each female is mated she is released from the coop and in this way several matings to one male bird can be made each day. It is essential that the male

bird be allowed a certain amount of exercise throughout the breeding season. This is done by taking him out of the coop once or twice a week and allowing him to run, at the same time keeping him away from all females.

Feeding Problems in Canada

In addition to questions in regard to breeding methods we asked Prof. Jull to tell us about the poultry food situa-

tion in Canada and how feeders can economize in this important respect without affecting egg yield or the health of the fowls. He replied to our questions most interestingly, as follows:

Question. How can the poultry man economize in the cost of feeding his flock under present conditions without affecting egg yield or health of fowls?

IVES' LANGSHANS "A GOOD STRAIN OF A GOOD BREED"

Consistent winners at the largest shows for many years. Elegant big COCKERELS NOW at very reasonable prices.

PAUL B. IVES, "Bonnycroft" GUILFORD, CONN.

S. C. WHITE LEGHORNS and S. C. RHODE ISLAND REDS

Baby chicks and hatching eggs from stock that has been bred for years for size, vigor, early maturity and winter laying. This is an opportunity to strengthen these qualities in your flock.

We will have a surplus of S. C. White Leghorn eggs in April and May and will make special prices on large orders. Our stock is all raised and kept on open range insuring eggs of high fertility and strong healthy chicks.

PETTIT BROS., WILSON, N. Y.

BUFF ROCKS VICTORIOUS

OCEAN TO OCEAN

World's Fair, San Francisco. First cock and champion male, first pullet and champion female, national cup for America's best and more awards than all competitors combined.

Madison Square Garden, New York. First pullet, 4th cockerel, 5th hen on 4 different entries, the only Buff Rock exhibitor to show at both these America's greatest shows.

The best line of breeding in the U. S. with 15 years under it. Why waste time and money on inferior stuff. Catalogue free.

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HEIST'S PARTRIDGE ROCKS

prove their quality by consistent winning Buffalo, 1914, 2 cockerel, 5 pullet. Batavia 1 cock, 1 hen, 1-2 pullet. Niagara County Poultry Show 3 firsts and best display. Let me tell you about them and quote you rock bottom prices on breeding or exhibition stock, cocks, hens, cockerels or pullets, also eggs for hatching.

ARTHUR HEIST,

CRITTENDEN, N. Y.



WOOD'S LIGHT BRAHMAS

WIN-WEIGH-LAY-PAY

My winnings this season include the National Championship cup for best display at annual meeting of American Light Brahma Club, Chicago Coliseum in competition with 162 birds shown by 21 exhibitors from 11 states. Won heavily also at Madison Square Garden, Boston and New York State Fair.

EGGS From 12 choice matings at \$3.00 to \$8.00 per 13. Please mention A. P. W.
HARVEY C. WOOD, Box 75, BOUND BROOK, N. J.

SINGLE COMB WHITE LEGHORNS

with low well spread tails, four high class exhibition matings. Winners at Chicago, and other mid west shows. We also breed R. I. Reds both combs, with that dark rich red color. Some are deeper in color of neck than other sections. Eight high class matings. None better anywhere. Our White Rocks have been line bred for 15 years and have proved their quality by their wonderful wins for the past ten years. They are exceptional in back, tail and breast shape, four star matings. Send for free circular and description of matings.

KEYSTONE POULTRY FARM, Guy E. Schreff, Mgr..

LINCOLN, NEBR.

80,000 EXHIBITORS estimated at San Francisco Panama-Pacific Exposition, out of this vast number The Martling Hennery was awarded

FIRST PRIZE and SECOND DISPLAY for

MARTLINGS SILVER AND GOLDEN CAMPINES

THIS SPLENDID TRIBUTE TO THE QUALITY of our stock, emphasizes the acknowledged fact that it is the best strain of Campines in the world. Last year's winnings included best display at Madison Square Garden, Palace, New York State Fair, New Jersey State Fair, and Brooklyn, a grand total of 300 prizes at America's leading shows.

If you are interested in this most PROFITABLE and ECONOMICAL breed of fowl, write at once. STOCK for sale at reasonable price, EGGS for hatching "MARTLING GUARANTEES A HATCH."

THE MARTLING HENNERY

P. O. Box 186

RIDGEFIELD, N. J.



Answer. A feature of great importance which has been brought about through the results of the great war is that poultry keepers must practice greater economy, particularly in regard to the selection of stock and feeding. Rigid selection should be practiced to eradicate all unprofitable producers from the flock. This applies to all classes of stock.

In regard to feeding it is doubtful if much specific information can be given. As far as feeding conditions in Canada are concerned, however, it can be said that corn can be used much more freely than is the case at present. In Canada, wheat is the staple poultry food, and the last quotation on a fair sample delivered to MacDonald College was \$1.90 per 100 lbs. Last August the College paid \$2.20 per 100 lbs. for wheat of rather good quality. Corn at the present time is quoted at \$1.60 per 100 lbs. Since corn compares favorably with wheat in regard to digestibility of nutrients it is obvious that corn can be used in place of wheat to a considerable extent.

Owing to the high price of oats it is also probable that the amount should be reduced, being replaced with corn to a certain extent. All classes of feeds are high when compared with prices which

prevailed in 1913 and the early part of 1914, but it is doubtful if many poultrymen can alter their rations materially and still secure satisfactory results. In this country beef scrap is very high costing us \$4.25 per 100 lbs., even in large orders, and it would be highly desirable to feed skim-milk ad libitum and provide the flock with green bone whenever it can be purchased at not to exceed \$2.00 per 100 lbs.

Question. What source of green feed for winter use have you found cheapest and most satisfactory?

Answer. Mangels and sprouted oats constitute the best source of green food for winter egg production. Sprouted oats are of much higher food value than mangels, but the latter are extremely succulent and therefore valuable for winter use. They are much cheaper than sprouted oats, but for maximum egg production sprouted oats must be used.

309 EGGS IN 365 DAYS

This is the record made by one of H. W. Sanborn's bred to lay S. C. Rhode Island Reds. This is no hit and miss record, it is the result of careful trapnesting for a period of 365 days and of systematic trapnest pedigree breeding covering a period of eight years and shows what can be accomplished when one is willing to take the pains and the time to breed for increased egg production by a system of carefully kept records and intelligent mating. Mr. Sanborn has the record of more than 400 individuals and will send it together with his mating list to any A. P. W. reader who is interested in better egg production and wishes to improve the laying capacity of his own flock. The list not only describes these wonderful layers but also quotes prices on pedigreed cockerels each one bred from a high producer. Just mention A. P. W. and address, Sanborn Poultry Farm, Attleboro, Mass. It will be sent by return mail.

LAY-EGG-HORNS

Edw. L. Blum, Proprietor Propo Farms, Loreley, Maryland, has given the above name to his S. C. White Leghorns on account of their propensity for laying large numbers of large white eggs. But this is not all, as eggs from these lay-egg-horns will hatch chicks that will have the same traits. Mr. Blum says they can't help it as they have been bred that way for years. In his announcement he says, "Let us send you eggs and chicks from birds that have shown results—that have earned money for us, and will earn money for you". Propo Farms Leghorns are grown on free range. They have 100 acres over which to roam and grow into healthy vigorous egg producers that makes their ownership a pleasure. You can secure eggs for \$6 per 100 and day old chicks for \$14.00 per 100. Can you produce similar quality for a like amount? He also offers four and eight weeks old chicks. His descriptive booklet tells all about them. It's free if you mention A. P. W.



COCK HEADING A WINNING EXHIBITION PEN
MADISON SQUARE GARDEN DEC. 31, 1915-JAN. 5, 1916
OWEN FARMS VINEYARD HAVEN, MASS.

Few breeders have achieved greater success in the production of choice Buff Orpingtons than Owen Farms, M. F. Delano, Proprietor, Vineyard Haven, Mass. As an illustration of this, one has only to point to their phenomenal win at the recent Madison Square Garden Show which included 1-4 pen, 2-4 cock, 1-5 hen, 2-4 cockerel, 1 pullet and first collection by a wide margin of points. The male illustrated above headed one of the winning pens and in addition to possessing wonderful color is a fine example of present day Orpington type and illustrates the progress that Owen Farms Buffs have made.—W. A. W.

Schneller's Partridge Rocks

Eggs that will hatch, \$3 and \$5 per setting.

HERMAN J. SCHNELLER, R. D. 2, BETHLEHEM, PA.
Breeders of Partridge Rocks "Bird Bros. Strain"
S. C. Buff and Brown Leghorns
Prize winners Buffalo and Rochester. Bronze
Turkeys and Roan Ducks. Mating list free.
A. G. BARLOW & SONS, "Maples" MEDINA, N. Y.

Leon C. Bennet Breeder of
BLUE ANDALUSIANS and S. C. REDS
A few cocks and cockerels of each variety for
sale at reasonable prices.
LEON C. BENNETT, EUCLID, N. Y.



Every Fowl a Money Maker

Did you read about the man that gave some chickens away and tied 25 cents on their legs and came out ahead?—Put 'em all to work—There should not be a chicken on the place that isn't earning money—Get my new Big Free Book, Tells of Chickens, Turkeys, Geese and Ducks, Incubators, Brooders and poultry fixings of all kinds. Henry Steinmesch, Pres. 33 N. 4th St. St. Louis, Mo.

Another Taylor Columbian Rock Win

At the Chicago Coliseum 1914 Show

I guarantee to please you. Mating list on request. Choice Cockerels and Pullets for sale.

JAS. H. TAYLOR

R. R. 5, WOODSTOCK, ILL.

BRED-TO-LAY

S. C. White Leghorns

Why not start right by securing hatching eggs and baby chicks from Heigl's bred to lay winter layers. By starting now you are assured of laying pullets next fall when eggs are high. January, February and March hatched pullets make the best fall and winter layers.

I can furnish any amount of strong fertile eggs at any time and guarantee them. Am also booking orders for baby chicks and have part of March and April booked up, so send your order now.

High class breeding stock at reasonable prices. Don't forget that winter laying is a habit with Heigl's bred to lay S. C. White Leghorns.

Chas. Heigl, Box W, Rocky River, Ohio

Bean's Harvard Reds

WIN AGAIN AT NEW YORK

First pen, first, second, third and fifth cocks, first cockerel, second pullet and third hen in Rose Combs.

Easily the Most Sensational Win on Rhode Island Red Males in the History of Madison Square Garden

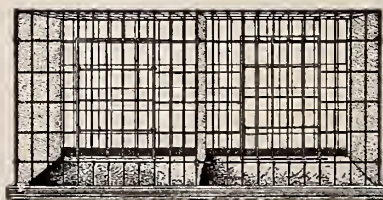
Add to this record, second pen, third cockerel and second display in Single Combs at the same show and then emulate a certain gentleman of historical fables at the end of 20 years of slumber. You know Van did wake up.

Descriptive circular, price list and illustrated mating list yours for the asking.

I. W. BEAN

34 Pond Street, South Braintree, Mass.

WARSAW COOPING CO.



Manufacturers of Exhibition Poultry and Pigeon Coops of latest improved design. We make a specialty of cooping Poultry Shows, at reasonable prices. Write for particulars.

WARSAW COOPING CO., WARSAW, N. Y.

DOUBLE MATING WHITE FOWL

Some Valuable Facts on the Mating Question from a Breeder of Wide Experience Whose Success in Producing Blue Ribbon Winners is Known from Coast to Coast

IN the March issue of this magazine I were published several replies to the question, "Is it Necessary to Double-Mate White Fowl." While all did not agree on the main points of the question, the majority answered in the negative.

After the March issue had gone to press the reply herewith was received from Maurice F. Delano, Proprietor of Owen Farms, Vineyard Haven, Mass., one of the most successful and best informed breeders in America. Mr. Delano's speaks frankly and with conviction and gives a simple rule for mating white birds that should prove of great value and assistance to readers of A. P. W. who are breeding white fowl.

Mr. Delano says:

In reply to your question, "Is it necessary to double mate white fowl in order to produce the highest type of exhibition males and females", it gives me great pleasure to answer in the negative.

I have never made a mating in any variety that I did not realize fully when I had it in mind that the average type of the cockerels from that mating would be a little better than the average type in the pullets from that mating or vice versa, but this is in no sense of the word, "double mating". It is simply that certain type characteristics in your breeding females will throw a little better type in cockerels than the same characteristics will in pullets, and when these same characteristics are shifted a little in your breeding females or in your males heading the pen, star female type will predominate.

I have never made a mating of white birds, however, in which there have not been exhibition cockerels and exhibition pullets from the same mating, and very often the percentage will be very nearly even.

I do not want to make this discussion unduly long, but as you know I am breeding four white varieties. A simple rule will apply to all four, and that is—that a standard male bird in either variety and with standard of type, mated with females that are just a little full in cushion with the exceptionally wide saddles, will breed a very high percentage of cockerels with splendid shaped backs, while the percentage of unusually fine backs and tails in pullets will come from standard back females or females with the tail carriage a little lower than standard, that have splendid width, mated with male birds with a very wide saddle and wide spread tail. It is not necessary to have the fullness of feather which makes a solid cushion on the breeding female to produce female backs. It is not absolutely necessary to have these to produce male backs but experience has taught me that every breeding female having a little more length of feather in this section, the backs of the average cockerel will be a little better than where they are standard in this section.

I hope the time will never come when double mating will be necessary in white birds, as it not only complicates matings and breeding of comparative beginners, but will double the number of matings necessary in the yards of experienced breeders. I regard it as absolutely unnecessary today and I hope it will remain so.—M. F. Delano.

BIRDS MATING LIST

Every lover of Blue Andalusians will be interested in the mating list for 1916, issued by E. D. Bird, Greenwich, Conn., one of the leading American breeders of this popular and beautiful variety. The list consists of fourteen pages and gives the reader a full understanding of the high quality of the Bird blues. For the benefit of A. P. W. readers who are not familiar with this fowl we will ask them to turn to the illustration on the cover of this issue. This picture shows an ideal Blue Andalusian male and conveys an accurate idea of the beautiful color and markings of the bird. For the season of 1916, Mr. Bird has made ten matings from which eggs are quoted at prices ranging from \$2 to \$5 per setting of 15 eggs. Every bird in these pens is said to be a ribbon winner and are mated to produce the best results. If you have never tried the blues or are about to start poultry raising and desire a fowl that is both beautiful and productive we can recommend the Blue Andalusian without hesitation.

*** All readers are invited to write us their experiences in poultry raising. Tell us of your greatest difficulties and how you overcome them.

MONEY-BACK POULTRY PUNCH

Cuts clean and quick. Easy to operate and see what you are doing. GUARANTEED satisfactory or money back.



Plain Finish - 25c

Nickle Finish - 35c

From your dealer or direct from

T. W. Rogers, Box 6, Lamont, Iowa

4-in-1 Cornerless Poultry Houses

Portable, durable, sanitary. Ideal for Brooders. No corners for chicks to crowd into and suffocate. Light and sunny. Open-air front; removable, adjustable floor. Convertible into Breeding Pen, Brooder, Colony or Laying House. Features double available floor space. Cheaper and better than home built houses. Same materials as our famous silos. Cash or easy payments. Special introductory offer to Agents. Literature and prices on request. Address Box 388, Unadilla Silo Co., Unadilla, N. Y.



Congdon's Barred Rocks

Bred for Utility and Beauty

Write your wants in Cocks, Cockerels, Hens, or Pullets. \$2,000 invested, 20 years' experience. INCUBATOR EGGS, \$5.00 per 100, \$40.00 per 1,000.

NEW BOOKLET FREE

W. A. CONGDON,

Box 404, WATERMAN, ILL.

BLUE ANDALUSIANS

Bred as a specialty and producing winners wherever shown. Fine lot of cockerels for sale. Pens and trios at reasonable prices, also single birds. Largest flock in the east. Heavy layers of large white eggs. Settings of eggs for sale. Mating list for 1916 upon request.

E. D. BIRD,

GREENWICH, CONN.

TOLMAN FRESH AIR STRAIN

WHITE PLYMOUTH ROCKS

Eggs for hatching. Now is the time to hatch your broilers. Order now.

JOSEPH TOLMAN, R. F. D, ROCKLAND, MASS.

1896 BUFF WYANDOTTES 1915

Have won continuously during the past eighteen years at the leading shows and in the largest classes ever shown. Have won best display at three National Club Meetings at Cleveland, Ohio in 1902, at Madison Square Garden in 1903, at Toledo, Ohio in 1913, in the largest and best classes of Buff Wyandottes ever shown. My small line is the strongest you can get anywhere and my males were persistent winners in large classes last season for my customers. Have some excellent males and females for sale. Satisfaction guaranteed or money promptly returned provided stock is returned to me within one week.

ANDREW RIDDELL,

R. No. 6,

GREENWICH, N. Y.

Bown's Big Three

Columbian Rocks

White Faverolles

Columbian Leghorns

If you want to win at a certain show; if you want to improve your stock, or if you want a variety that will make money for you let me tell you about my "Big Three". For all around purposes, that is, fancy and utility combined, they cannot be beaten. As a fancier fowl, as winter and all the year around egg producers they will meet every requirement and as table fowl they are excelled by none.

I have some choice stock at moderate prices. The number is limited so be quick if you want something good.

LEW H. BOWN,

Box W,

EAST AURORA, N. Y.

SUCCESSFUL BROODING OF CHICKS

A Canadian Subscriber Tells How He Cares For His Chicks for the First Four Weeks

BY T. M. FOTHERGILL

IN the February number you ask for a few words explaining how to brood and raise chicks the first four weeks. I may say that I raise a few fowl as a hobby and to indicate to you the character of the stock I raise I may mention the fact that my Partridge Rocks for the last two years have distinguished themselves in the London and Guelph exhibitions. The latter, as you know, being the highest exhibition in Canada.

First of all, my greatest difficulty was to take care of them during the last week in March and early in April as in this northern section of Canada the snow is with us and the nights are too cold to risk leaving the little chicks out, even in a coop, unless you have artificial heat. Of course, being a small breeder, I do not have a lot of apparatus, so to simplify things as much as possible I get on the good side of the wife, and so secure a small place in the house, where I place a fair-sized box of a few boards with sides of 7 or 8 inches high. On these boards I place a home-made brooder, which consists of a box, about one foot square and deep, with the bottom taken out and replaced with tin or zinc. In this box is placed a three-quart can, filled with hot water, changed three times a day. This can is padded all over with cloth or batting and a lid placed above to conserve the heat. Four short and narrow legs are placed at the corners of the box. A loose cloth is fastened to the bottom for the backs of the little chicks to touch and a band of cloth is wound around the bottom of the box and legs with slits in it to enclose the chicks.

This is not original with me, but I have copied it from a friend and used it with excellent results. When the chicks have been hatched about 40 hours, either by hen or incubator, I remove them to this brooder where they nestle under the warm bottom of the brooder and rest on the chaff-covered bed. An inch of chaff is placed on the floor and here they get their first feed and first drink. The water is made luke warm and for the first two days is only left in the box for about an hour in the morning and an hour in the afternoon. After that it is kept there all the time. The first feed they get is composed of old bread crumbled and mixed with hard boiled eggs with fine chopped onion. You should see them go after onion and no tears shed either as some people do when they eat onions. For a change I substitute dry rolled oats, scattered in the chaff, sprinkling a little several times a day. It is important to keep in mind to feed sparingly for the first two or three days, after that they will take food freely without any danger.

After they get about two weeks old a small self feeder is placed in the box, in which is placed dry food composed of crushed wheat, shorts, bran. Less quantity of wheat is given at first, then increased as the weeks pass. The chicks grow so fast that it is found necessary

to put in this ration about a tablespoonful of dry cut bone to a quart of feed in order to keep them on their legs. A little millet or bran or rolled oats are scattered in the chaff to make them scratch. Then when the weather is suitable the chicks are moved out into the yard where they are given a small coop, and rest at night under a home made fireless brooder. This way of caring for little chicks has this great advantage in that they take up so little attention, for one after attending to them in the morning need not even look at them until the evening when they need to be carefully watched that they learn how to go under the brooder.

This letter has grown longer than I intended, but I am enthusiastic in this method of raising chicks and find that I can surpass any of my acquaintances in procuring both growth and safety and little disease as well as increasing pleasure and comfort along with cheap methods.

PERRY'S R. C. WHITE LEGHORNS

At the National meeting of the Rose Comb White Leghorn club held at the Flower City Show, Rochester, N. Y., January, 1916, Lewis H. Perry, Route 7, Clay, N. Y., won best display, two firsts and seven cash specials. Mr. Perry has been breeding the R. C. Whites for several years and has tried by careful and systematic breeding to build up a strain combining both beauty and productiveness. We are advised that he still has some choice stock for sale also that he has eight select matings from which to sell eggs for hatching. He also breeds Buff Rocks, Black Wyandottes, Fawn and White and White Runner Ducks, Colored Muscovy Ducks and Embden Geese. His circular giving full particulars and prices will be sent free to all who mention A. P. W. when writing.

THE CRIMSON STRAIN

Among those who have succeeded in producing Rhode Island Reds of the quality that wins the blues in strongest competition we wish to mention China Hanchett, Verona, N. Y. Mr. Hanchett, has been breeding for years along well defined lines and each season he has been able to capture his share of the honors at leading shows. Last season he made one entry at the New York State Fair, a pullet in the single comb class, and in the strong existing competition was awarded the blue. Now this is no ordinary achievement as it is seldom that one can select the specimen that is capable of entering so strong competition and carry off first honors. We understand that Mr. Hanchett has some grand matings both some for this season and that eggs are running high in fertility, also that his prices are particularly attractive. His mating list now ready for mailing tells the whole story and will be mailed promptly to those who mention A. P. W. when writing.

DO YOU WANT WINTER EGGS? Then secure some of Sands' Bred-to-lay S. C. White Leghorns. EGGS from Trap-nested Matings headed by males from high producing dams. Sands' Leghorns are the big, vigorous, bred-to-and-do-lay kind. They mean profit to their owners. Why not own a few? Write your wants today. Choice breeding cockerels \$3 to \$5. Baby Chicks, Baby Chicks, Baby Chicks.

LEROY E. SANDS,

Box W.

HAWLEY, PA.

Vincent's Buff Rocks Win

My recent record at MADISON SQUAKE GARDEN prove conclusively that my Buff Rocks are equal to the Country's best. In competition with America's best I won 1st. pen, 4-5 cock, 1 hen, 2-3-5 cockerel 2nd. pullet. These winners now in the best matings I ever owned. Stock or eggs. Send for mating list.

James H. Vincent

Box W.

Hazelton, Pa.



Healthy, Lively, Sturdy Chicks

are reared only in homes kept strictly clean and sanitary. Every baby chick in your yard represents an investment of time and money. White diarrhoea and other fatal diseases, when once started in a flock spread rapidly. Don't take chances with your investment. Prevent contagion, lice, mites, etc., from getting a foothold in your flock by using

CARBOLA
The Disinfecting White Paint

to spread health and sunshine into every corner of your plant. A snow-white mineral paint with which is combined the most powerful, germ-and vermin-killing disinfectant known to science. Completely effective yet absolutely harmless to the birds. If you want your birds to have clean, wholesome, sanitary quarters

Use it instead of whitewash

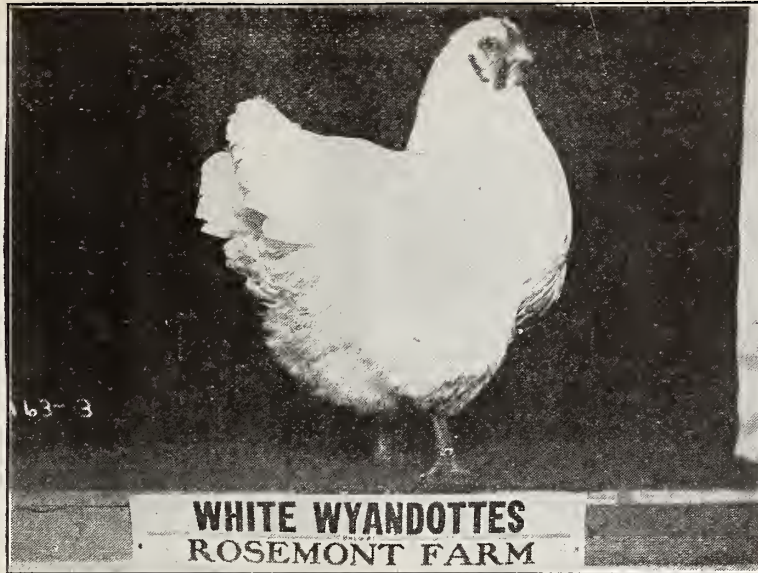
Comes in powder form. Mix with water and it is ready to use—no straining or bother of any kind. Easily applied with brush or sprayer. Will never flake, peel or blister. Send 25 cents now for trial package—money refunded if results are not satisfactory. Your dealer carries it in stock or can get it for you at the following prices:

10 lbs. (10 gal.) for \$1 plus postage.
20 lbs. (20 ") for \$2 delivered free.
50 lbs. (50 ") for \$4

Do not accept a substitute. Write us if your dealer will not supply you. We'll rush shipment to you.

Carbola Chemical Company
Dept. D.
7 East 42nd St., New York





Few varieties of poultry are more popular than the White Wyandotte. They are not only beautiful but have proven their value as market fowl and producers of eggs in large numbers especially during the fall and winter when eggs are high. Rosemont Farm White Wyandottes combine the above qualities and in addition are said to mature early and to possess great vigor and stamina. The above illustration shows of their breeding females. Their free catalogue will give complete information about matings, prices, etc. Better send for it today.—W. A. W.

SAND'S MATING LIST

S. C. White Leghorns bred for standard and utility requirements are the specialty of the Leroy E. Sands Poultry Farm, Hawley, Pa. This farm was established several years ago, and was a success from the start. Each year has seen it grow until today it is one of the most successful in the country. The farm consists of about twenty acres well situated for poultry raising and it is a model for convenience and simplicity in building arrangements. Sand's Leghorns are the healthy hustling vigorous kind that pay their way and make a handsome profit besides. More than 10,000 of these hustling layers are kept with a few miles of the Sands Farm and all are making profit for their owners. You can have the same kind next season if you send today for a copy of the mating list and place your order for day old chicks or hatching eggs.

BYERS ORPINGTONS

C. S. Byers, Hazelrigg, Ind., specialist in the production of Buff, Black and White Orpingtons for more than fifteen years has mated up some grand pens for the season's egg trade so we are informed. No matter what you require, he it stock for high class exhibition or utility Mr. Byers is prepared to supply your wants in either variety with hatching eggs or stock. Byers Orpingtons have a reputation that has been established through years of careful and systematic breeding that makes them dependable whether purchased for exhibition or utility purposes. He will be pleased to hear from all A. P. W. readers who are in need of either variety of Orpingtons and guarantees to give value received and satisfaction in every transaction.

ALLEN FULL NEST POULTRY FEEDS

To raise chicks properly, we must have the proper foods. To be sure there are many grains and mill feeds that are suitable providing they are fed in the correct proportion, but a majority of the beginners know little about chick raising let alone the proper mixing of foods. But there need be no cause for alarm when balanced rations such as are offered by the Allen Milling Co., Dept. 4, Niagara Falls, N. Y., are available. These feeds have been thoroughly tried and scores of poultrymen, testify to their value. The Allen Milling Co. are poultry feed specialists—they make a business of preparing balanced rations—both grain and mash for all ages of poultry, and take justifiable pride in the quality of their product. They can solve the feeding question if you will give them the opportunity. Just write them today for information and prices and mention A. P. W.

COLUMBIAN WYANDOTTES

Twelve firsts at three 1915 shows, also 1st pullet, cockerel, cock, pen and 4th hen at Brooklyn Show. Choice breeding stock for sale. Correspondence invited. Horseshoe Poultry Yards, Hicksville, L. I., N. Y.

MOTTLED-JAVAS-BLACK

EGGS AND BABY CHICKS FOR SALE FROM 1916 WINNERS AT MADISON SQUARE GARDEN AND BOSTON.

SETH W. MORTON

BOX 124,

ALBANY N. Y.



Andrews' White Wyandottes

Win great victory at Boston, 1916, 1-5 cock, 1-2 hen, 1-4 cockerel, 2-3-6 pullet, 1st pen. Best Display. Eggs for hatching from matings headed by all these winners. Send for mating list.

J. W. ANDREWS, Box W, DIGHTON, MASS.

McLEAN'S S. C. RHODE ISLAND REDS

NONPAREIL STRAIN

Grand Central Palace, 1st hen and shape special, also 5th pen. At Springfield, winner of 1st Display Cup. At the great Waterbury-Hartford Show, winner of Rhode Island Red State Cup of America.

MATING LIST NOW READY

S. G. McLEAN,

SOUTH GLASTONBURY, CONN.

"SUPERIOR DARK BRAHMAS"

At America's Greatest Exhibition, Madison Square Garden, 1916

In a keen class in competition with some of America's best breeders they made a most sensational winning (on seven entries).

1st and 3rd Cockerel
1st and 2nd Pullet

4th and 5th Hen
2nd Pen

My first pullet being the sensation of the class. At the late Louisville and Dayton shows I won 8 firsts, 8 seconds, 14 minor ribbons, 7 specials including special for best display of any one variety. If interested in this Grand Old Variety send for my 1916 Mating List.

W. H. Besuden,

Box 13-R,

Evanston Sta.

Cincinnati, O.

W. S. Stuver, Breeder and Importer of SPECKLED SUSSEX

Stock for sale. Eggs for hatching from Forest City Fair, Ohio and Ohio State Fair, Chicago Coliseum, Canton, Ohio, and Wadsworth, Ohio, Shows.

W. S. Stuver,

Wadsworth, Ohio

CHAMPION STRAIN

WHITE CORNISH

Eggs and stock for sale from Blue Ribbon winners at Hagerstown, 1915. Bred for weight and general utility purposes.

John H. Sheffer Poultry Farm, Dillsburgh, Pa.

Silver Campines - Wyandottes

Winners at the leading shows. Choice birds at \$1.50 and \$2.00 each.

R. D. REIDER

Route 2, MIDDLETOWN, PENNA

Rowans Black Spanish

Blue ribbon winners at America's leading show Panama-Pacific, Boston and Madison Square Garden, Chicago. If you want stock that will win in any competition I can furnish your needs.

If you want eggs that will hatch prize winners I have the quality you want.

Try Black Spanish

They are healthy, vigorous and prolific layers of large white eggs. Hatching eggs \$5.00 per thirteen. Each additional thirteen \$4.00.

R. A. ROWAN

LOS ANGELES, CALF



EVERLAY FARM

During the present month the Everlay Farms, Methuen, Mass., are prepared to ship 50,000 day old chicks and another 60,000 during May. These chicks are all S. C. White Leghorns and are hatched from eggs produced by the famous Everlay Farms layers. Now just let this fact "soak in." The eggs are produced and the chicks are hatched on Everlay Farm and shipped direct from the incubators to the customer. You know exactly what you are getting and when you get an Everlay Farms day old chick you have the assurance that the ability to lay nice white eggs and plenty of them is bred into it if it turns out to be a pullet. If it happens to be a cockerel it has the prepotent power to produce progeny that will show improvement in egg production, this is what you get when you buy Everlay Farms Stock. The ability to supply stock of this kind has made the Everlay Farms business in day old chicks what it is today. To learn all about this wonderful plant do not fail to send for the grand 96 page catalogue that is sent free upon request.

COMMON SENSE BROOD COOPS

Attention is directed to the Common Sense Brood Coops manufactured by Gallant Bros., Dept. J., Elmore, Ohio, and advertised elsewhere in this issue. This is a very neat and desirable coop for the old hen and her family and is so constructed that protection against rats, weazels, skunks, etc., is furnished. When desirable this little coop is furnished with a fireless brooder attachment making a convenient and serviceable brooder at low cost. This concern also manufacture a large line of Colony houses embodying the same common sense principles found in this brood coop. All houses and coops are collapsible and come knock down thus insuring a great saving in freight charges. Houses may be erected or taken apart in a few minutes time and are adaptable to all branches of poultry raising. A free illustration circular tells all about them and gives prices.

HAROLD TOMPKINS MATING LIST

For the season of 1916, Harold Tompkins, Concord, Mass., the well known Rhode Island Red Specialist has issued an attractive and interesting twelve page mating list. As an introduction he gives some facts concerning his Reds their show record, laying qualities, terms of sale, etc., etc. Then follows a description of his matings sixteen in number consisting of eight of single comb and eight of rose comb, exclusive or several selected matings of both combs made up of the balance of his flock. Several lifelike illustrations of recent winners are shown giving a good idea of the quality of the Tompkins Reds. For the first time, during his experience as a breeder he will book orders for baby chicks. He has reluctantly consented to do this but the insistence of customers has made it necessary. Day old chicks will be supplied only from the selected matings. Only eggs will be sold from prize matings. A copy of this list will be sent to all who mention A. P. W.

ASBJELD BUFF ROCKS

In the advertising of I. M. Asbjeld, Alcester, So. Dakota, will be noticed a small black and white cut on which the following wording appears "Asbjeld Buff Plymouth Rocks are good ones". No truer advertising phrase was ever coined as this particular strain of Buff Rocks have proven time and again in prominent shows that they are "good ones" by carrying off the coveted honors. But this is not all as we have Mr. Asbjeld's word for it that they are bred for superior egg production as well as standard requirements giving this strain the combination so desirable where a profitable fowl is desired. With standard qualities combined with superior egg production a most useful fowl is the result and there is little to be desired further than this. Orders for hatching eggs are now being booked and Mr. Asbjeld guarantees eight healthy chicks from every setting. His mating list will give prices and guarantee.

PLATT'S RED SUSSEX

Among the first supporters of Sussex in this country, Frank L. Platt, Swanton, Ohio, is not only one of the most enthusiastic but also one of the largest importers of Red Sussex from their native heath in the Sussex district in England. Mr. Platt's flock of this variety is now well established and few breeders have met with greater success than he. His exhibits at leading shows have always attracted much attention and have been

highly complimented by the leading poultry publications. For the season of 1916, Mr. Platt has made a few select matings and is now booking orders for hatching eggs and solicits the patronage of those who are looking for a dependable breed that are not only a fanciers fowl but also one that excels in the quality of flesh for table purposes. The Sussex is the premier table fowl of England, and they are always at a premium on the leading markets. They are also popular in the show room in their mother country and winning specimens bring long prices. The outlook for the Sussex is very bright and those taking them up now will have a money maker.

PHILLIPS PARTRIDGE ROCKS

The record made by Phillips Partridge Rocks at the New York State Fair and the Greater Buffalo Show, in 1915, proves conclusively that they are in the quality class as they captured more firsts than any competitor at the State Fair and every first at Buffalo, in addition they were awarded best display at both events. Third hen and fourth pullet at the recent Garden Show was also won by Mr. Phillips. The majority of these winners are now in his breeding pens and the way they are shelling out the eggs shows that they lay is bred into them as well as the prize winning ability. He has several small but select matings for the season's egg trade and is now booking orders for

immediate or future delivery. A fine mating list describing matings will be sent to all who mention A. P. W. and address, J. F. Phillips, 140 Merrimac St., Buffalo, N. Y.

THE VERDICT OF THE USER

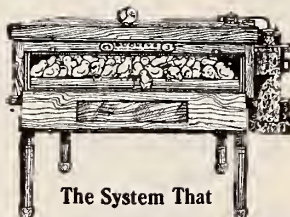
This is the title of a most interesting little book being sent out by the Buckeye Incubator Company, 527 Euclid Ave., Springfield, Ohio, and it contains indisputable evidence of the satisfactory results that users of Buckeye Incubators have obtained for many years.

Page after page of photo reproductions of letters from those who have handled the Buckeye Incubator for years supply the evidence that the Buckeye not only does all the manufacturers claim for it but that it has been fulfilling all claims for years and years. The Buckeye is made in several sizes ranging from 60 to 600 eggs, and sells at a price that puts it within the means of every poultry raiser, be he a city back lotter or the large poultry farmer raising thousands of chicks yearly. Reader if you have not had a copy of this book and are looking for an incubator with the evidence back of it to prove all claims made for it, you should send for a copy today.

*** What is your favorite breed? Just tell us all about it explaining why you believe them superior to others.

"Buckeye" The Standard

"The Best Incubator Made"



The System That

HATCHES MORE CHICKS AND HATCHES BETTER CHICKS

Than any other incubator regardless of size, price or method.

Recognized by the largest breeders and the largest poultry supply dealers as the safest and surest incubator ever built. Every machine a guaranteed success.

It's the Best Incubator Made

Not the cheapest incubator but the best.

It's the incubator that is built UP to a standard and not DOWN to a price. That's why the "Buckeye" is sold by more reliable dealers than all the others combined—that's why so many of the large, successful breeders will use no other. The "Buckeye" is sold by more than two thousand of the largest poultry supply dealers and there are over 400,000 in successful operation! Let us send you a list of some of the big breeders who use the "Buckeye" and their reasons for using it. Let us send you the names of the largest dealers and their reasons for selling it. Let us tell you about the wonderful success of the "Buckeye" system and why so many have tried to imitate it. The "Buckeye" is made in seven sizes—60 eggs to 600 eggs.

600 Eggs	-	-	\$50.00
200 Eggs	-	-	17.50
110 Eggs	-	-	12.50
60 Eggs	-	-	7.50

SOLD ON 40 DAYS TRIAL
and guaranteed to hatch every hatchable egg.

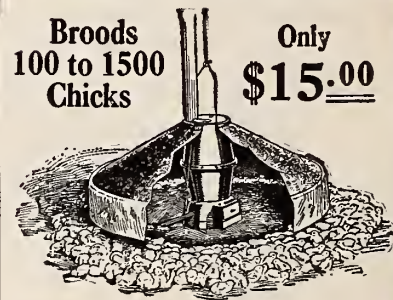
Try a "Buckeye" in the same room with any other incubator and if it doesn't hatch more chicks and better chicks the first time you try it, we'll take it back.

Write for "Buckeye" Catalog and Proof of "Buckeye" Superiority

The Buckeye Incubator Co.

COLONY BROODER

Broods
100 to 1500
Chicks
Only
\$15.00



The Greatest Coal Burning Brooder Ever Invented

Self Feeding—Self Regulating—Everlasting. Heavy cast iron stove that requires coaling but once in 24 hours in any temperature.

Fifty-two inch hover that will positively brood 1500 newly-hatched chicks.

30 Days Free Trial

The Standard Colony brooder is the most practical brooding device ever invented. It will do anything and everything that any other brooder will do and do it better. It is infinitely more satisfactory than brooders selling at twice the price. We are so positive that it can not fail that we will permit you to try one for thirty days and

Write Your Own Money-Back Guarantee

Sold and guaranteed by dealers everywhere at \$15.00. Insist on the "Standard" and beware of imitations. Write us for a "Standard" Catalog and we will tell you how to grow three chickens where one grew before.

527 Euclid Ave. Springfield, O.

Note: Prices are a little higher west of the Rockies on account of freight rates.



The above view shows a pen of Columbian Wyandottes bred on Wilburtha Poultry Farms, Trenton Junction, New Jersey. This pen won 1st prize at Madison Square Garden, 1915-16, Show and is one of the finest matings ever exhibited. Wilburtha Columbian Wyandottes are all line-bred under the able direction of Mr. D. G. Keyler and have justly earned for this farm the title of "Headquarters for Columbian Wyandottes." Mating list and price list on this breed will be sent for the asking.

BROODING WITH HENS

(Continued from page 447)

a good insect powder and test her out for three or four days on nest eggs to make sure that she is going to stick to her job.

When I get ready to place the eggs under her I dust her again and arrange to put the eggs under her at night, and plan on dusting her again about the seventh and fifteenth days. Coops are placed on the ground in shady places near each other so that there will be less work to care for them. I often hang burlap over the front so as to make them a little dark. The hen is fed every morning and watered with fresh water and every night I make a trip around to see that the hens are still on their job. If eggs get very dirty I wash them or wipe them with warm water, but try not to rub them.

When the hen brings off her brood I take out the nest and place litter in the coop and keep the hen confined for a few days, after that I place coops in separate yards under fruit trees and let the hen out with the chicks until they are put on range. For feed I use steam-cooked chick feed from the first feed, which is about 36 to 48 hours after they are hatched, but before they are given the feed I give them water and sprinkle chick grit in the litter, after a week I keep before them bran and fine charcoal and grit. At first the chicks are fed four times daily what they will clean up in twenty minutes. I have lost very few chicks from sickness and none in four years from diarrhoea.—G. S. Buxton.

I. M. Asbjeld, Alcester, South Dakota, explains how he cares for the hen and chicks and supplies illustrations of the brood coops used in producing quality Buff Plymouth Rocks.

IN raising my chicks with hens, I am very careful to select hens that are very tame and gentle. They should be

thoroughly dusted, with good insect powders so that the hen can set with comfort. In selecting a place to set a hen great care should be used so that the hen is not set in too dark a place, then



Another argument for H-O Steam-Cooked Chick Feed

"We have used a large amount of H-O Steam-Cooked Chick Feed; in fact, we have raised all our chickens this year with H-O Feeds, and find them entirely satisfactory for growing chicks from shell to maturity."

"E. P. F.", Hunts, N. Y.

The reason H-O Steam-Cooked Chick Feed brings results is because the littlest chicks can digest it. It thus removes the greatest danger in poultry raising and cuts out the loss resulting from dead chicks.

The grain elements of H-O Steam-Cooked Chick Feed are combined by experts in the proportion needed to build tissue and make healthy chicks. The feed is then *steam-cooked*. This makes the grains more digestible, and by eliminating excess moisture, prevents souring of the grain. For this reason H-O Steam-Cooked Chick Feed prevents the frequent digestive troubles of little chicks.

Try H-O Steam-Cooked Chick Feed and see for yourself if it doesn't pay.

Write for sample, prices and descriptive booklet.

THE H-O COMPANY

Mills:
BUFFALO, N. Y.

JOHN J. CAMPBELL

General Sales Agent
HARTFORD, CONN.

YANT'S BARRED ROCKS

Won the Diamond Special for Best display at the Chicago Coliseum, December, 1914. They are the kind you have long been looking for. Write me
JOHN W. YANT, Route 24, CANTON, OHIO

Barker's Black Langshans

An established strain that has won highest honors at Madison Square Garden, Chicago, etc., year after year.

M. S. BARKER,

THORNTOWN, IND

PINE CREST

S. C. White Orpingtons

Heavy laying strain with showroom record. Four grand pens headed by sons of Madison Square winners. Five and three dollars for 15 eggs. Baby chicks after March 1st. Catalogue.

MRS. W. HOUGH

Pine Crest Farm,

Royal Oak, Michigan

Mirimichi Quality

S. C. R. I. Reds, White Plymouth Rocks and White Wyandottes. Winners at New York, Boston, Brockton, Providence and Attleboro.

Cockerels, Pullets, Cocks and Hens that will win for you. Prices low. Satisfaction guaranteed. Catalogue free.

MIRIMICHI POULTRY FARM

W. H. Saart, Mgr., Foxboro, Mass.

at the same time the hen should not be set where the direct rays of the sun will shine on her. To make hens set good they must have plenty of good wholesome food, for my setting hens I feed corn, mangle beets, grit, charcoal and pure fresh water. Have had splendid results from this ration.

The boxes I set my hens in are shown in the sketch on page 497 they are 16 in. square and 18 inches high with a door on top, a few ventilating holes are placed on the sides of the box, the nest is made for each box so there is no fighting or getting mixed up, this wire run is made 48 inches long, 24 inches high, 18 inches wide, this gives the hen plenty of room to move around a little and take a dust bath.

When the chicks are first hatched they do not receive any food at all for the first 36 hours, then they are fed a little good bread that has been soaked in sweet milk and squeezed dry and crumbly, after the first feed has been fed a little oat meal is added to the above feed, when two days old I also give them Cyphers chick feed, chick manna and Pratts chick feed, together with a little sprouted oats that has been clipped up fine, I feed from six to eight times a day what they will eat up clean. It is very important that a supply of pure fresh water is kept before them at all times. When they are about two days old sprinkle a little clean sand on the floor, to save chick feed. I feed the old hen, whole corn.

A hen will brood about twelve chicks the best, in warm season, a few more can be added, it never pays to crowd them.

The hen and chicks are placed in a coop like the one shown in the sketch on page 498 it is two feet wide, three feet long, two feet high in the rear and three feet high in the front, the roof is made loose, so that it can be lifted off for cleaning, the roof is also covered with galvanized sheet iron, the coop is fitted with glass door, also with a screen door, that is loose that can be set in when the glass door is open. There is also a slatted door made the same way that can be set in when the glass door is open. I use this in warm weather for newly hatched chicks. I keep the hen shut inside and the little chicks can go through the slats and enjoy themselves to outdoor life. It is not a good plan to turn a hen outside with newly hatched chicks as it is hard work for the little ones to keep up with the hen.

The floor of this coop is three inches above the ground so as to keep dry, all lumber used is one inch thick soft pine, in warm weather the rear end of the roof or lid is lifted up an inch or two so as to give the chickens plenty of fresh air.

I always allow the hen to go with her chicks just as long as she wants to. As the chicks grow larger their feed is somewhat changed to coarser grains as Cyphers developing food, wheat, hulled oats and a little cracked corn. I also feed granulated milk that has been soaked in water until it forms a dry crumbly mash. Plenty of grit and charcoal is kept before them at all times, in warm weather the drinking water is given to



The illustration herewith shows one of the winning females produced at Fernbrook Farms, Menands Road, Albany, N. Y. Exclusive breeders of White Wyandottes for exhibition and utility. They have several matings for the egg trade and are prepared to supply eggs by the setting or hundred at reasonable prices.

Partridge Plymouth Rocks

Boston and New York State Fair winners, 1st hen at New York State Fair last three years, last fall Judge Cleveland said 1st hen the best bird in class (168 birds in class). Stock for sale. Eggs in season. **G. S. BUXTON, Box W. BELLOWS FALLS, VERMONT**

S. C. RHODE ISLAND REDS

My matings are the result of twenty years of scientific breeding. The last five years I have produced and sold exhibition specimens that have won in nearly every large show room in the United States. Send for free mating list.

GEO. L. BUELL, Box W, LORAIN, OHIO

Harter's Imperial Golden Buff Rocks

Harter's Buff Plymouth Rocks have a national reputation as winners at the leading shows of the country. Line bred for years they are equalled by few and surpassed by none.

This season I have not exhibited and I have the finest matings that I ever put together. Matings that will produce for you the quality that will put you among the winners at next season's shows. Eggs from these matings at \$5 and \$10 per setting. Send for mating list. I still have some choice stock for sale.

NESCOPECK POULTRY FARM

S. H. HARTER, Prop. Box W. Nescopeck, Pa.



1st NEW YORK COCKEREL

(Madison Square Garden) 1st cock and 1st pen male, 1st and second pen males and 2nd cock Boston, 1915, 1st cock, 1st cockerel, 1st pen male, Boston, 1914, will head some of our WHITE WYANDOTTE pens this season.

Eggs from ten pens EACH ONE HEADED BY A BOSTON OR NEW YORK WINNER. \$5 per 15.

At Detroit, 1916, on five entries out White Wyandottes won, 1st cock, 1st hen, 1st cockerel, 1st pullet, 1st pen and specials including best cockerel in American classes, while on four entries our LIGHT BRAHMAS won 1st cock, 1st hen, 1st cockerel, 1st pullet and all specials. Eggs \$5 per 15.

SAUNDERS & WILLIAMS, Box B, INGERSOLL, ONT., CANADA.

MOUNT PLEASANT FARM

AMERICAN S. C. W. LEGHORNS

Mount Pleasant Farm standard American bred Leghorns have been bred by us 14 years—Pullets raised from our chicks have a record of 215 eggs per year—For admirers of beauty and symmetry of the American Leghorn the Mount Pleasant Farm strain cannot be excelled.

Day Old Chicks Eggs for Hatching
Selected Cockerels

ENGLISH S. C. W. LEGHORNS

We have recently acquired a line of cockerels of the famous Tom Barron 283 egg strain English Leghorns—These we have mated with 500 Mount Pleasant Farm 2 year old hens—This mating combines the best laying strains of English and American S. C. White Leghorns.

Day Old Chicks Eggs for Hatching
Send for Free Booklet

MOUNT PLEASANT FARM
MOUNT POCONO, PENNSYLVANIA

CANNED CHICKEN SOUPS

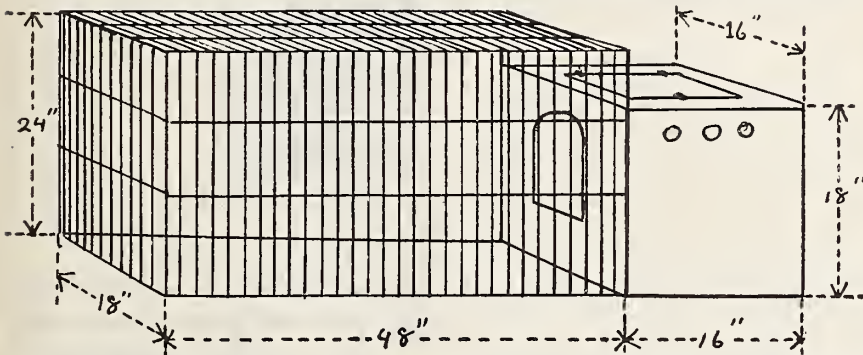
Among the recipes furnished home canning club members by the canning specialists of the extension work, North and West, States Relations Service, are the following methods of preparing and canning chicken soup stock, chicken broth with rice, and chicken gumbo:

Chicken soup stock.—Place 30 pounds of chicken in 10 gallons of cold water

while hot. Partially seal glass jars. (Cap and tip tin cans.) Process 90 minutes if using a hot-water bath outfit; 75 minutes if using a water-seal outfit; 60 minutes if using a 5-pound steam-pressure outfit; 45 minutes if using a pressure-cooker outfit.

SUPERIOR DARK BRAHMAS

The above is the strain name by which the Dark Brahmas produced by W. H. Besuden.



The above sketch supplied by Mr. Ashjeld (see page 496) shows how he manages his setting hens. With this arrangement there is no danger of the hen getting on the wrong nest and permitting a valuable setting to chill.

and simmer for 5 hours. Remove meat and bones, then strain. Add sufficient water to make 10 gallons of stock. Fill glass jars or tin cans with the hot stock. Partially seal glass jars. (Cap and tip tin cans.) Process 90 minutes if using a hot-water bath outfit; 75 minutes if using a water-seal outfit; 60 minutes if using a 5-pound steam-pressure outfit; 45 minutes if using a pressure-cooker outfit.

Chicken broth with rice.—For each gallon of soup stock use 12 ounces of rice. Boil the rice 30 minutes. Fill the jars or tin cans two-thirds full of rice and the remainder with chicken soup stock. Partially seal glass jars. (Cap and tip tin cans.) Process 90 minutes if using a hot-water bath outfit; 75 minutes if using a water-seal outfit; 60 minutes if using a 5-pound steam-pressure outfit; 45 minutes if using a pressure-cooker outfit.

Chicken gumbo.—Cut 2 pounds of ham into small cubes and boil 30 minutes. Mince 3 pounds of chicken and chop one-half pound of onions fine. Make a smooth paste of one-half pound of flour. Add about 5 gallons of chicken soup stock. Then add one-half pound of butter and one-fourth pound of salt and boil 10 minutes. Then add 3 ounces of powdered okra mixed with 1 pint of water. Fill into glass jars or tin cans

Box 13-R, Evanston Station, Cincinnati, Ohio, are known and judging by their wonderful record at several prominent shows, Madison Square Garden included, during the past season they are fully entitled to the name. Mr. Besuden has just issued an attractive mating list of eight pages and cover describing his matings for the season and illustrating many of his winners. He guarantees 75% fertility and will replace free of charge all under that per cent. It is good to see this deserving old breed receiving the attention of such breeders and we trust that others will take hold of them and again place them among the popular breeds—a place to which they justly belong. Mr. Besuden will be pleased to hear from all interested in this good old breed.

SPECIAL SALE R. AND S. C. RHODE ISLAND REDS

600—YEARLING PULLETS, COCKERELS—600

I must reduce my stock of breeding birds and am going to sell at \$2.00, \$3.00, \$5.00 and \$10.00 birds worth three times the money. Just the right time to get breeders from which to get show birds for the winter shows. This is your opportunity—grab it while you can. Everything on approval and money back if you do not like it. Baby chicks and month old chicks also.

ANNESLEY M. ANDERSON,

Box W.

MORTON, Pa.



VICTORY AT CHICAGO

GENSCH'S WHITE ORPINGTONS

Win first pen the coveted prize of all the S. C. White Orpington class, also second and seventh cockerels, third cock, sixth hen, third and seventh pullets. In addition to this GREAT CHICAGO WIN my White Orpingtons have won during 1914-1915, 8 firsts, 3 seconds, 5 thirds and 2 fourths.

White Orpington buyers of breeding stock or hatching eggs. Write me today for reasonable prices. Remember QUALITY. Better than ever.

F. M. GENSCHE, Box G, OMRO, WISC.


OUR CHAMPION SENSATION

And RED PRINCE Strains of Rose and Single Comb Reds

Have Won This Winter: MORE FIRSTS at Madison Square Garden than any other exhibitor. They won ALL firsts on females, something never before accomplished at this show. They won three times as many firsts at Boston as any competitor. They won at Madison Square Garden, Boston, and Providence four times as many firsts as any of their competitors, and within two of as many firsts as all competitors combined. ALL these winners and many others are in our 1916 Pens. Send Stamp for Mating and Price Lists.

A Few More Cockerels Left at Bargain Prices

RED FEATHER FARM, BOX 22, TIVERTON 4 CORNERS, R. I.



WHITE DIARRHEA IS A CONTAGIOUS DISEASE

Little chicks have hair trigger organs that pick up digestion troubles with discouraging ease. White diarrhea, the common ailment of little chicks, rapidly passes from the affected chick to the other members of the brood. Very often almost the entire flock is swept away before the disease can be checked. Be prepared. Put

Conkey's

WHITE DIARRHEA REMEDY

in the drinking water from the start. It's an excellent preventive as well as an effective remedy. Prices 25c and 50c.

CONKEY'S GAPE REMEDY — throws off gape worms. Unless treated, chicks choke to death. 25c and 50c.

CONKEY'S ROUP REMEDY — the first of the Conkey Poultry Remedy line. Be sure to have it ready this uncertain weather. 25c to \$1.00.

THE G. E. CONKEY CO.
1004 Conkey Bld., Cleveland, O.

*** What has been your experience in buying hatching eggs? Baby chicks.

PROFIT IN RAISING TURKEYS

Under Favorable Conditions Turkey Culture May Be Made Highly Profitable. Some Pointers Regarding Their Habits, also Suggestions on Breeding, Incubation and Brooding

FOR those who are favorably situated for raising turkeys, a more profitable side line can hardly be found. Given plenty of range where the turkeys can find grasshoppers and other insects, green vegetation, the seeds of weeds and grasses, waste grain, acorns and nuts of various kinds, the cost of raising them is very small and the profits large. Grain and stock farms are particularly well adapted to turkey raising, and it is on such farms that most of the turkeys are found. Little has ever been done in the way of raising turkeys in confinement, and where it has been tried the results have been discouraging. Plenty of range is essential to success in turkey raising.

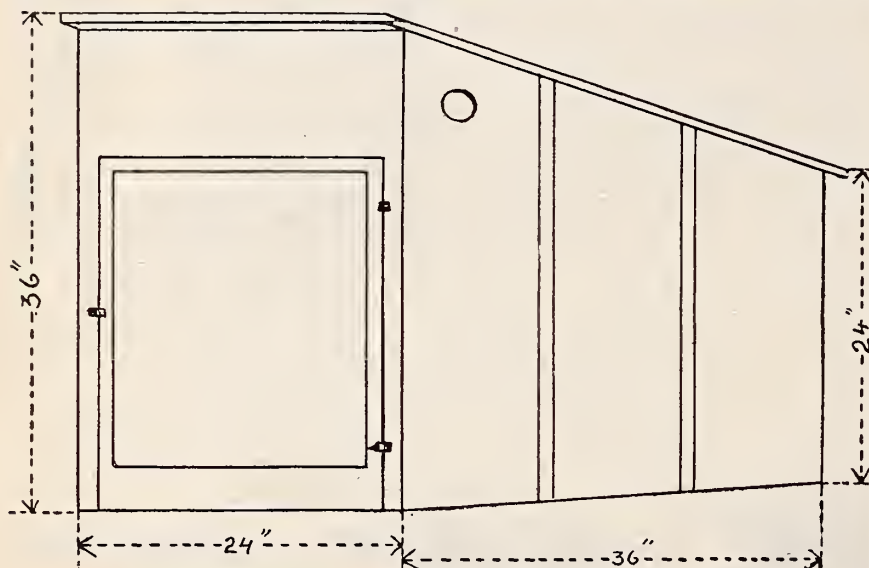
Breeding

In selecting turkeys for breeding, the most important factors to be considered are vigor, size, shape, bone, early ma-

time, but one should be confined one day and the other the next. When two toms are allowed to run together during the mating season, they fight badly and the stronger does practically all of the mating.

Laying

Turkey hens are wont to "steal" their nests in hidden places, such as a patch of weeds, tall grass or thick brush and often wander a half mile or more from home before they find locations that suit them. To find these stolen nests often proves to be a long and tedious task, the usual method being to follow each turkey hen as she separates from the flock and starts toward her nest, care being taken that she does not know she is being followed. A much easier and quicker method than this is to confine the hens early some morning soon after they have come down from roost



Herewith is a sketch showing construction and dimensions of brood coop used by Mr. Asbjeld. Note what he says regarding this coop in the article on page 496.

turity and color of plumage. The body should be deep and wide, the back broad, and the breast round and full. The head should be of good size and of a clean, healthy appearance. A strong, well-made skeleton is shown by thick, sturdy shanks and straight, strong toes. It should be the aim of every turkey raiser to have a flock of pure-bred turkeys, even though they are sold at market prices. The male at the head of the flock should by all means be a pure-bred of the best type obtainable. The male is one-half the entire flock, and by continually selecting the best females of a similar type and mating these with a pure-bred male, one can soon have a flock of uniformly large, early-maturing strong-boned, long and deep bodied turkeys of the same color.

Fifteen turkey hens can safely be mated to a vigorous tom. If 25 or 30 hens are kept, two toms should not be allowed to run with them at the same

and let them out late in the afternoon. Those that are laying will then head for their nests in order to lay the eggs they have been holding.

If many turkeys are kept, the use of a breeding pen will be found a great convenience. This pen should cover a sufficient area to allow the turkeys some exercise, an acre for fifteen birds being none too large. A hog-tight wire fence, three feet high, will hold most turkeys, and if any persist in flying out, the flight feathers of one wing should be clipped. Nests should be scattered about the pen, those which turkey hens take to most readily being barrels turned on their sides and nests shaped in them with straw.

Incubation

Turkey hens, chicken hens and incubators are commonly used to incubate turkey eggs. During the early part of the laying season it often happens that one has on hand a number of eggs that

White Houdans

Buff Wyandottes

Young stock for sale after November 1st. Will satisfy my customers or refund money.

STUART A. HOWLAND, GRANVILLE, N. Y.

\$2.50 for 25 to 50 CHICK HOVER

Made of Galvanized Steel. Can be used in any box. Safe and durable. Hot water heat. All complete. Incubator hook free. We make 73 different articles.



WENDELL INCUBATOR CO., Holly, Mich.

Fowls Feed Themselves

Great saving of feed and labor. No waste. Fill it once in four days for fifty fowls. Fowls jump on step. Door swings in. 4 may feed at one time. Door locks automatically. Patent device prevents hooking out or wasting feed. Rat, rain and bird-proof. Saves work of everyday feeding. Save feed. Made of galvanized iron. Satisfaction or your money back. Ask your dealer, or write us for descriptive circular.



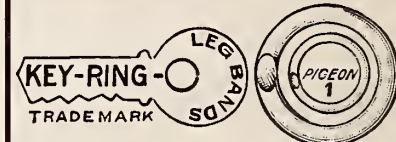
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Lock Box W-201. Rockford, Illinois

Mark Your Day-Old Chicks



Now is the time to mark your chicks—then you can easily recognize them when they become larger.

Make identification easy, quick and certain by using



Key-Ring-O Leg Bands are used by some of the biggest and best informed poultry raisers in the country. Dr. N. W. Sanborn of Holden, Mass., one of the most eminent men in the poultry world, writes as follows:

"Last summer I had some chicks hatch out of eggs laid by my 246-eggs record hen, and failed to toe-mark them, so I slipped on the shank a green Key-Ring-O Leg Band. As I have found pullets this winter with the toe-mark of the hen's chicks, I have put on the green band. So I can quickly make up a breeding pen when the season opens."

SHIPPED POSTAGE FREE

Key-Ring-O's are put on like a key ring—but easier; light as a feather; last a lifetime; made in ten colors; will not fade. And what's more, they stay on when put on.

No. 1, Pigeon, and No. 3, Baby Chick—12 at 10c; 25 at 20c; 50 at 35c; 100 at 50c. No. 2, Mediterranean; No. 4, American; No. 5, Bantam; No. 6, Asiatic—12 at 15c; 25 at 30c; 50 at 50c; 100 at 75c.

Made in Black, White, Dark Blue, Light Blue, Pink, Red, Green, Yellow, Purple, and Garnet.

State Colors and Sizes Wanted.

NEWELL & GORDINIER

Manufacturers

Dept. 16,

TROY, N. Y.

should be incubated before any of the turkey hens are through laying their first litter and become "broody." In such case, and also when it is desired that the turkey hens lay more than one litter, some of the eggs have to be incubated under chicken hens or in an incubator. About a week before the poults are due to hatch, turkey hens enough should be allowed to sit to take all the poults hatched. They can be given a few eggs from the incubator or from under the chicken hens and allowed to hatch the poults themselves, or at night a newly-hatched poult can be slipped under each turkey hen that is to be given a brood of poults and by morning she will be glad to take them.

Lice

Lice are a great annoyance to sitting hens and are one of the worst enemies of young poults. To prevent their getting a foothold, dust the hen thoroughly with some good lice powder before she is placed on the nest and once a week thereafter while she is sitting. The nesting material should be kept clean, and if the eggs become dirty they should be washed with lukewarm water.

Brooding

If the weather is warm and dry no shelter is required, as the poults do better in the open. Should it be rainy, however, they need to be protected, for nothing is more injurious than for them to become wet and chilled. The most satisfactory plan is to confine the mother turkey hen to a coop and allow the poults to run in and out whenever rain does not prevent. This coop should be placed in a field where they can run out and find grasshoppers, green vegetation, and other feed. The coop should be moved to fresh ground every day.

Improper feeding, combined with close confinement, has been the cause of many failures in turkey raising. Given free range on the average farm, the poults can easily pick up their own living, and one light feed a day for the purpose of inducing them to come in at night is sufficient. If the mother hen is confined to a coop and the poults allowed to run in and out, three times a day is often enough to feed and very little should be given at a time. The poults should always be ready to eat; if given all they will clean up several times a day, indigestion will be the result. If there is little or no feed outside the coop for the poults to pick up, then they should be fed about five times a day, feeding only a small quantity at a time. A good feed for the first few days is stale bread, soaked in milk and squeezed dry. Corn bread crumbs and clabbered milk or cottage cheese is also quite often fed and with excellent results. Green feed and grit should be on hand at all times. As the poults grow older, the ration should gradually be changed to grain.

THE JOY AND PROFIT OF MODERN FARMING AND GARDENING

"To business that we love we rise betime and go to't with delight."

Shakespeare must have seen with prophetic vision the coming of the day of modern cultivating methods when he penned those lines, for if any one thing has contributed to the delight of the farmer and gardener in his free and independent outdoor vocation it is certainly the rise of modern agricultural implements. If anything has put the joy of labor into his being it must be the machines that take the drudgery out of labor. And if anything has demonstrated to him how to make his vocation a real money-making business, surely it is these up-to-date implements that do the work three to six times quicker, and do it better than has ever been possible before.

No wonder that nowadays it is common to find farmers in love with their work and gardeners who put their whole soul into their cultivating.

And who wouldn't be captivated with the splendid working of such implements for the garden as the combined hill and drill seeder, double and single wheel-hoe, cultivator, and plow?

This one implement is a veritable "man of all work" in the garden. By means of its various attachments it begins the season by use as an efficient garden plow, then by opening the furrow, then it drops the seed accurately in hills or continuously in rows, when the plants are above ground, it is instantly convertible into either a single or double wheel-hoe for cultivating between rows of straddling crops. Again it can be changed into an excellent cultivator to keep the ground in good condition all through the season.

This implement not only makes cultivating a real pleasure, but it saves so much time that it easily pays for itself in a single season.

Then there are such marvelous machines

as the two-row two-horse cultivators which cultivate two rows of corn and similar crops at one passage, and work admirably in crooked rows and rows of irregular width as well as in listed corn. Here again the modern cultivator makes a big saving—a saving of 100 per cent in time and labor in this instance.

The orchard cultivator is likewise a wonder in producing better crops in orchard, hop-yard, or vineyard. The most up-to-date implement of this class carries sweeps, discs, furrowers, irrigating steels, plows, alfalfa teeth and special weeders, Side-hitch for low trees, tree shield, fore-carriage, and spring-trip standards are also made part of the equipment, when wanted.

Taking rank as the greatest time and labor-saver for beets and beans is the four-row cultivator which works four rows at one time, and by means of patent shield hoes it runs close without covering plants or injuring roots.

These are a few examples of the progress made in cultivating implements which cover the whole range of farming and gardening requirements, and make cultivation today mere "child's play." Indeed many of these modern implements and machines can be readily manipulated by any boy of average intelligence, which still further reduces the cost of skilled labor.

A full description of any of the most advanced farming tools can be obtained by addressing S. L. Allen & Co., Box 1202 J., Philadelphia, manufacturers of Planet Jr. farm and garden implements, who also send a 72-page fully illustrated catalog free upon request.

*** A dime pays for a four months trial subscription to A. P. W. Why not send it to a friend?

*** Tell us what you think of A.P.W. We appreciate good words from our readers.

3 FIRSTS, 5 SECONDS, 3 THIRDS, 3 FOURTHS, 3 FIFTHS

Our 1915-1916 Combined Winnings, Chicago and Madison Square Garden on home raised birds.

EGGS BABY CHICKS BREEDING STOCK

Write for the finest mating list of the year. Rankins Reds will help you.

SCHENLEY HEIGHTS POULTRY FARM, Box 8, 1202 Commonwealth Bldg., Pittsburgh, Pa



Hatheway's Golden Campines

At the official Club Meet, Chicago Coliseum, the greatest of all Campine shows my birds win 1st and 2nd cockerel, 2nd pullet, 3rd cock, 3rd hen, shape special on male and color special on male.

WIN AT CHICAGO COLISEUM, THREE YEARS, 1913-14-15

The Golden Campines I own and have in my breeding yards have won 8 firsts, 3 seconds, 4 thirds, 2 fourths. A record unsurpassed in all Campine history the first prize pullet, Crystal Palace, London, England, 1913, and my importation of the seven best birds raised in England this year gives me without a doubt the greatest line of Golden Campines in all America.

EGGS—EGGS—EGGS—EGGS—EGGS

Hatching eggs from the finest matings in America. Write today for free mating list and prices.

E. P. HATHEWAY, M. D., P. W. Nertney Bldg., OTTAWA, ILL.

COBURN'S RED SUSSEX FARM

Great Victories at Two Sussex Club Shows Within 10 Months
In competition with England and America's Best Birds

MADISON SQUARE GARDEN, N. Y., FEBRUARY 1915

RED SUSSEX—Championship male and female, 1st pen, 1st cock, 1st cockerel, 1st hen, 5th pullet on five entries. SPECKLED SUSSEX—Championship female, 1st hen, 1st pullet, 2nd pen on three entries.

COLISEUM, CHICAGO, 1915

RED SUSSEX—\$25.00 silver cup, best display, \$15.00 silver cup, best colored male. 1st old pen, 3rd young pen, 1-4 cock, 3-5 hen, 2-4 cockerel. 2-3 pullet. SPECKLED SUSSEX—1st young pen, 3-4 old pen, 3rd hen (no cocks shown), 4 cockerel, one entry. All winners from our own pens. We raised them. Write for our special prices and values on exhibition, breeding and utility stock. Mating list February 1st,

ADDRESS CHANGED FROM MARYSVILLE TO

COBURN'S RED SUSSEX FARM, Route 33, ST. CLAIRE, MICH.
H. H. & E. M. COBURN, Owners, Electric Stop Maxwell, PHONE 668-F22

MADISON SQUARE GARDEN WINNERS SCRANTON'S S. C. RHODE ISLAND REDS

Have been tried before the HIGHEST TRIBUNAL and found guilty of carrying away the most coveted prizes from America's premier show, MADISON SQUARE GARDEN. They won in the strongest competition possible, first and third pen, first cockerel, second and fourth pullet, fourth hen, color special on male, best display with more than twice as many points as my nearest competitor and grand special for the champion S. C. Red of the show. Have fifteen of the best matings this season ever in my yards. Mating list ready February 10th. A copy is yours for the asking.

B. H. SCRANTON,

RISING SUN, IND.

WISCONSIN AGRICULTURAL COLLEGE POULTRY WORK

By Homer W. Jackson

(Continued from page 453)

can be tested more accurately with two or three birds or a single individual than with a large flock.

It is conceded, of course, that any experiment, to have practical value, must be carried out with flocks of commercial size, but often this can only be done to good advantage after individual tests have been made. Speaking generally, I believe that twice as much can be accomplished with given facilities when preliminary individual tests are made as is done at Wisconsin, repeating only the most promising experiments with large flocks.

Co-operation

I have called attention elsewhere to the fact that even poorly equipped poultry departments often are able to make marked progress through co-operation with other departments in the institution, especially in cases where the line of work overlaps to some extent.

Here at Madison the poultry department in its work in poultry diseases has the hearty co-operation of the Department of Bacteriology and Veterinary

A. B. Dann, an instructor in Poultry Husbandry at Cornell, will also assist Professor Halpin during the coming semester, doing so on leave of absence from Cornell. This plan of allowing men leave of absence from one institution in order that they may serve for a time in another in order to afford them opportunity for working under different conditions and thus acquiring wider experience, certainly is a wise step, and I believe, might be more generally adopted, with highly satisfactory results.

O. M. Johnson, also is an assistant in Professor Halpin's department, and is a practical man of many years of commercial experience. His special forte is along lines of feeding and caponizing.

Professor M. E. Dickson, who has been an assistant in this department, resigned last fall to take charge of the new department of Poultry Husbandry at Nebraska College of Agriculture.

The poultry department here is doing splendid work, but certainly operates under a heavy handicap. It seems to me that it is up to the poultrymen of Wisconsin to look into the situation—just in their own interests. If the poultry department could have a well organized plant with sufficient ground, permanent, adequate buildings and proper equipment, its opportunities for instructional work and for investigating the many problems which directly concern the de-



COLONY HOUSES AT UNIVERSITY OF WISCONSIN

These houses are on the lawn near the main building and are used mainly for the brooder flocks. A number of the same type are scattered over the range where the growing stock is kept. Note the small exit doors about three feet from the ground. After the chicks are several weeks old, these doors are left open so that the chicks can get outdoors first thing in the morning. The side of the building below the door is covered with tin or galvanized iron making it impossible for rats, etc., to climb up.

Science. In the feeding experiments, the Department of Agricultural Science co-operates, while the breeding work enlists support from the Department of Experimental Breeding.

Organization of Poultry Department

Professor J. G. Halpin, head of the department, is a graduate of Cornell, and was called to Wisconsin after serving for a time as head of the poultry department at Michigan College of Agriculture. He has built up a strong department here, and is having as large poultry classes as he is able to care for with the facilities provided. He is especially strong in investigational work as is indicated by the foregoing outlines of experiments under way.

J. B. Hayes, instructor in poultry, is a graduate of Wisconsin, and has had considerable practical experience and appears to be well qualified for the work. He served as my guide during my visit, in the absence of Professor Halpin, and is thoroughly in earnest and enthusiastic over his work.

velopment of the industry in Wisconsin would be greatly increased. There can be no doubt that Professor Halpin will make splendid use of more adequate facilities and Wisconsin is to be congratulated on having so competent a man in charge of the poultry work.

Department of Experimental Breeding

While not connected with the poultry department, no statement of the work done along poultry lines at Madison would be complete that failed to call special attention to the work done by the Department of Experimental Breeding.

Dr. L. J. Cole, who is head of the Department of Poultry Breeding, came to Wisconsin after years of training under Dr. Hadley at Rhode Island, and has been giving special attention to the subject of Mendelian inheritance and has secured some of the most interesting results. One experiment in, inbreeding which is being carried on in connection with the poultry department I have already referred to.

In this experiment the attempt is

RAT CURE

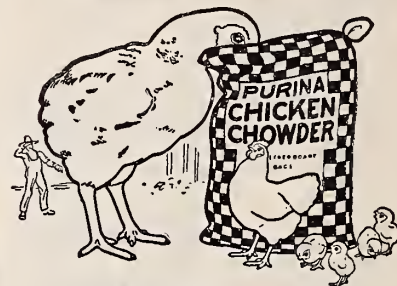
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ONLY RATS WILL EAT

TRY BEFORE YOU PAY

KILLS 4 RATS FOR 1 CENT

MORISRITE MFG. CO., Dept. BLOOMFIELD, N. J., U. S. A.



Chicken Chowder Makes Chesty Chix

Something more than grain feed is necessary to properly mature a chick. Purina Chicken Chowder is a scientific combination of the necessary ingredients, such as linseed meal, granulated meat, alfalfa flour, bran, etc. Use with Purina Chick Feed for quick results. Chicks reach the laying period earlier, are stronger and less subject to disease.

Purina Poultry Feeds are sold only in checker-board bags by leading dealers. If your dealer doesn't sell them, mention his name in writing for

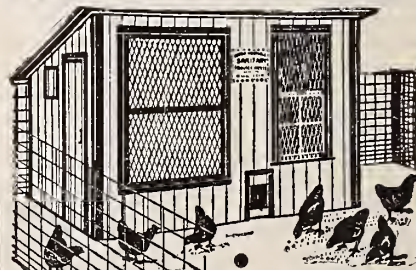
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POULTRY BOOK
FREE!



Contents: Breeding and Feeding Charts, Cures of Diseases, Timely Poultry Pointers, Plans for Poultry Houses, Trap Nests and Fixtures, Daily Egg Records, (Spaces for Keeping.) Best Recipes for cooking Eggs Poultry, etc.

RALSTON PURINA CO., Inc.
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Don't Build—It's Cheaper to Buy Potter Redybilt Poultry Houses



A \$36 House, Painted 2 Coats

You can buy Portable Houses, Sanitary Roosting and Nesting Fixtures, Coops, Hoppers, etc., cheaper than you can build. Houses, \$16 up. Complete henner outfits, \$3 up. Used over 10 years by thousands of successful poultry keepers. Start right.

Get the world's best poultry equipment at the lowest prices. Makes it easy and inexpensive to start in the chicken business. Send 4c in stamps for large 100-page Poultry Equipment Book.

POTTER & CO., 19 Forest Ave., Downers Grove, Ill.



made to determine whether deterioration necessarily results from close inbreeding when selection is based on a character which has no physiological selection value. In this experiment selection is based upon color and the effect of inbreeding is measured by egg production, vigor, etc. Data secured in three years of experiments along these lines will be published very shortly, but the matter is not yet in shape to permit me to give a definite statement as to results secured.

Another experiment conducted by this department is to do with the effect of lead on the off-spring when the lead is administered to the male parent. This experiment is designed to give an answer to the question as to the effect on the offspring, of any poison administered in small doses to the male parent. A preliminary report was published a year ago showing that lead poisoning in the male results in distinctly smaller and weaker germs, results confirmed by duplicate experiments during the past year.

Dr. Cole has used pigeons extensively in his breeding work and has already published two interesting bulletins dealing with results secured, two other reports being under way at the present time.

The principles governing the breeding of fowls are so little understood that every definite advance made in our knowledge of the subject is an important one. The practical poultry breeder is liable to get impatient with the seemingly ultra-scientific work being done at some of our stations. He would like to have the investigator cut across lots and in a short time and a few words tell him how to introduce more certainty and less chance into his matings. I believe that the splendid work being done by Dr. Cole and by others who are following similar lines will presently produce just that result, but as for cutting across lots—it can't be done.

POULTRY SHOWS IN WISCONSIN

The poultry industry is reaching a high state of development in Wisconsin. It is growing into a business, not alone for the exclusive poultry raiser, but for the farmer. For years past the hen on the average farm has been forced to "scratch" or die. No one worried about her welfare. Perhaps a little corn was thrown out for her when the farmer fed the hogs. She could roost in any convenient place, as the barn, out-sheds or a near-by tree. Naturally, under such conditions the hen did not return many eggs. On every farm there were numberless varieties of color—no respect was paid to breeding.

Today conditions are different. The hen is considered a valuable asset to the farmer. She is in most cases receiving good care. Her companions have the same markings and she is producing and making money for the owner. Many owners are in the business as an exclusive manner of making a living. Such men are also giving much time to development of good stock for fine feathers

and egg production. Both classes of poultry raisers have been greatly stimulated by the poultry shows throughout the country. Great chances are offered for studying the desired type of bird and for competing with friendly breeders. W. C. M.

SCHENLEY HEIGHTS MATING LIST

The twenty page mating list of the Schenley Heights Poultry Farm, 1202 Commonwealth Bldg., Pittsburgh, not only describes the matings of both S. C. and R. C. Reds for the season; their winnings in leading shows during the past seasons, but also shows several illustrations of the farm that will pleasantly surprise a great many. The main building is 405 feet long and contains forty-eight breeding pens, in addition to this there is field after field covered with colony houses and Reds are literally raised by the acre, as the Schenley Heights Poultry Farm is no back yard affair but a real out and out farm of many acres. It is located a few miles from Pittsburgh and is an ideal spot for the production of quality poultry. About 5,000 head are wintered. In addition to the above buildings the equipment consists of a 7,000 Egg Hall Mammoth Incubator, brooder house and several styles of individual hovers. It is expected that more than 50,000 baby chicks will be produced here this spring. If you want to deal with a Red Specialist then write for the Schenley Heights mating list before placing an order elsewhere.

RED FEATHER FARM

F. W. C. Almy, Proprietor Red Feather Farm, Tiverton Four Corners, R. I., in calling attention to his show record in a recent letter states: "I won more firsts on Reds at Madison Square Garden, than any other exhibitor. I won all firsts on females, something unique in the history of this show. I also won three times as many firsts at Boston, as any other exhibitor, in fact I won as many firsts at Boston, as any three other exhibitors. At New York, Boston and Providence. I won more firsts than any four of my competitors and all these winners and many more are now in my breeding pens."

Mr. Almy issues a neat and attractive mat-

ing list describing the season's matings of both S. C. and R. C. Reds in which the blood of the famous "Sensation" and "Red Prince" two of the best Red males ever produced predominate. This list will be sent free to all who mention A. P. W.

IF YOU ARE THE LEAST BIT INTERESTED IN

S. C. BUFF ORPINGTONS

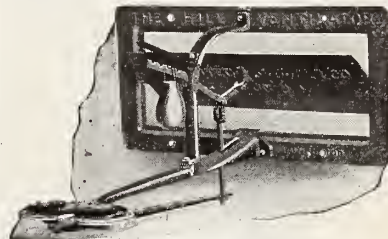
THAT ARE MATED FROM HIGH EGG RECORDS YOU SHOULD WRITE US FOR OUR 1916 MATING LIST.

CHERRY LANE FARM CO.

O. Wilson, Mgr.

Oak Hill, West Va.

THE HILL VENTILATOR \$5.00 FOR COLONY HOUSES



Solves the problem of the houses becoming too warm in the middle of the day and the chicks crowding in the corners at night. The Hill Ventilator works automatically, always opens and shuts at the right time, needs no attention. With plenty of fresh air in the house you can raise more chicks, stronger chicks, and make a better profit.

SEND FOR DESCRIPTIVE CIRCULAR TELLING ALL ABOUT THE INVENTION.

THE UNITED BROODER CO., TRENTON, N. J.

"PREMIER" PARTRIDGE WYANDOTTES

WON 37 FIRSTS OUT OF A POSSIBLE 44

At America's greatest shows during the past winter. The 20th. Century Beauties, bred for utility as well as appearance. Exhibition and and Breeding Stock at reasonable prices. Baby chicks sixty cents each in lots of 10. Eggs for hatching \$5.00 per 15. Beautiful illustrated catalogue, full of valuable information FREE.

SHEFFIELD FARM, H. B. Hark, Mgr., Poultry Dept., GLENDALE, OHIO

THEY WIN! At the Greater Buffalo Poultry Show THEY WIN!

November 22-27 in a class of 110 birds, in competition with some of America's best 1 pen old, 1-3 cock, 3 cockerel, 4 pullet and best display. **PALMER'S WHITE ROCKS** They also win as egg producers—they can't help it, they are bred that way. They are the profitable kind—the kind you have been looking for.

Let us quote you prices. Cocks, hens, cockerels, pullets, baby chicks or eggs. Circular Free: **THE GLEN POULTRY FARM, R. F. D, FAIRPORT, N. Y.**



Puritan Partridge Rocks

Prove their superior quality by winning at the great Cleveland Show, January 3-5, 1916: 1-2-3 cock, 1-2-3-5 hen, 1-2-3-4-5 cockerel, 1-4-5 pullet, 1-2 pen. This grand winning on male birds proves conclusively where to purchase new males for either exhibition or breeding purposes.

Hundreds of Grand Exhibition and Breeding Birds

Cocks, hens cockerels and pullets fit to put into any breeding pen. Birds of standard weight, grand type, excellent color and fine head points. In fact birds of that high quality that have made Puritans famous throughout all America. Satisfaction guaranteed. Write for free 1916 Sales List.

BESUDEN BROS.

Box 2-W,

Evanston Station,

CINCINNATI, OHIO

HENDRICKSON'S LIGHT BRAHMAS

W. A. HENDRICKSON,

Houston Ave.

WORLD'S CHAMPIONS, 1914-1915. First prize winners and specials for best males and females at both Boston and Madison Square Garden on different birds. Stock of same blood lines for sale.

MATTAPAN STATION, MILTON, MASS.

LOSS IN CRACKED EGGS

\$881,000 Lost from Slightly Cracked Eggs—Pack Spring Eggs So As To Prevent Shell Damage

ABOUT 50 per cent. of the egg crop of the whole year is produced during the months of March, April, May, and June, according to experts in the employ of the U. S. Department of Agriculture who contribute the following on the losses from improper handling.



This illustration does not do justice to the beautiful Buff Leghorn cockerel that headed the fourth prize pen at Madison Square Garden and also won third in the open classes at the Palace New York Show. He was bred and is owned by L. Wagner, Pro. Orange Poultry Yards, Manhasset, L. I., N. Y., specialist in the production of Buff Leghorns of quality.

It is during March, April and May also that the eggs are of the best quality and most desirable for cold storage. Nearly 86 per cent. of all the eggs so stored go into storage during March, April, and May.

It is especially necessary, therefore, the department's egg-handling specialists say, to see that the early spring pack is well put up in new standard cases with new, strong fillers and flats and that cracked eggs, even the very "lightest checks," be rigidly excluded.

Cracked eggs, the practical studies of these investigators have established, are the cause of great trouble and loss to the egg industry from producer to consumer. Every time an egg is handled on the farm or elsewhere it is likely to get shell damage. Occasionally the hen cracks an egg, but that is seldom. The farmer cracks some on the farm, and by the time he has hauled them to the country store or to the shipper investigators find that approximately 4 per cent. are cracked and one-tenth of 1 per cent. mashed or leaking.

If the country storekeeper rehandles the eggs and hauls them to the egg shipper, the number of cracked eggs is in-

creased to about 6 per cent. In addition, three-tenths of 1 per cent. are mashed eggs or leakers that must be thrown out. If, however, the country storekeeper sends the cases of eggs to a near-by shipper by local freight, the total of cracked eggs has risen at the end of the journey to approximately 7 per cent., and 1 per cent. more are mashed or leaking. The damage when eggs reach the big cities after a haul of 1,000 miles or more will depend upon the quality of the egg packing, the way the lot is placed in the car, and the way the railroad hauls the car especially when switching. When the eggs are shipped in car lots and both shippers and carriers do their work well, transit damage is kept down to as little as 1 per cent., including cracked, mashed, and leaking eggs.

Approximately one egg in two cases gets mashed or becomes a leaker on the railroad trip. But when eggs are shipped in less than car lots, the transit damage is generally multiplied in many times. The total damage from all handlings of eggs between the hen and the consumer, investigations show, is certainly not less than 10 per cent., and may be even greater. The 10 eggs out of 100 that are damaged consist of about 8 eggs which are lowered in value by cracking and

about 2 eggs which are a total loss.

What Becomes of Cracked Eggs

What happens to all these cracked or

Keller's Wyandottes

son Square Garden, Buffalo, Chicago, St. Louis, Cleveland, Cincinnati and Columbus, during the past 29 years. They have the size, shape, color and narrow lacing that puts the Keller stamp on them. Choice stock to spare that are real bargains. If you wish to raise fine show stock and high class stock birds that are heavy layers try us. Eggs from the finest matings \$3.00 and \$5.00 per setting, also the finest Golden Sebright Bantams. Large circular.

IRA C. KELLER, Expert Judge,

Brookside Stock Farms,

Box 25,

PROSPECT, OHIO



"America's Championship Winning."

S. C. BROWN LEGHORNS

At Madison Square Garden, Feb., 1915, in the hottest competition seen in years, won first, second, third and fifth cocks, first pullet, first pen, and gold special for Best Display in class. Eggs and stock for sale. Shipped safely any distance. Utility and exhibition strongly combined.

SEND FOR ILLUSTRATED CATALOGUE.

Williams Bros., Fullerton, Calif.

J. C. WILLIAMS, Prop.

C. B. BROWN, Supt.

PIGEONS PAY
Better Than Chickens
Young pigeons (squabs) bring 40 to 60¢ each when 3 to 4 weeks old. Big demand in city markets. Each pair of pigeons easily clear \$4 per year. Always penned up. Very little space and money needed to start. Free Book explains all. **MAJESTIC SQUAB CO., Dept. 22, ADEL, IOWA.** **FREE BOOK**

9 9 9
COLORED LEG BANDS
Big Black Figures on White Background
All colors, all sizes for all fowls and pigeons. Birds identified without handling. Baby chick bands, 18 colors, not numbered. The best band in the world today. Samples and catalogue **FREE.** **A. P. SPILLER, Dept. B, Beverly, Mass.**

To get rid of rats get
RID OF RATS
Non-Poisonous. Guaranteed to destroy the rat and mouse pest from corners, bins, poultry houses, stables, etc. No results, no pay. Box 10c; Doz. boxes \$1 east of Miss.; \$1.20 west of Miss. If your dealer can't supply you order direct. Write for catalog, it tells the story. **Berg & Beard Mfg. Co. 12 Steuben St. B'klyn, NY**

Harvard Reds

EGGS EGGS

One man's chance that materialized:

**UNITED STATES POST OFFICE,
LANARK. CARROLL CO., ILL.**

"March, 7, 1916.

"Dear Mr. Bean:

"Last season We bought one of your \$10 Single Comb settings and had good success. We raised two cockerels and three pullets. One of the cockerels was only fair. The other scored 94 and the pullets 96, 94½ and 93½ by Judge Chas. McClave at our recent show. I doubt if this 96 point pullet has an equal in the U. S.

"I am enclosing check, etc.

"[Signed], J. A. SHANER,
"Asst. P. M."

Will You Take a Chance?

Illustrated Particulars FREE.

I. W. BEAN,

324 Pond St., South Braintree, Mass.

SILVER, GOLDEN AND WHITES. Line bred for 31 years. One of the oldest strains in America. Winners of thousands of premiums at Madison Square Garden, Buffalo, Chicago, St. Louis, Cleveland, Cincinnati and Columbus, during the past 29 years. They have the size, shape, color and narrow lacing that puts the Keller stamp on them. Choice stock to spare that are real bargains. If you wish to raise fine show stock and high class stock birds that are heavy layers try us. Eggs from the finest matings \$3.00 and \$5.00 per setting, also the finest Golden Sebright Bantams. Large circular.

towns at a greatly reduced price, but the money loss on them is very great.

Some of the cracked eggs show very plainly to the ordinary observer that they are damaged even if the membrane under the shell is not broken. These are generally put into cases by themselves and disposed of at from 25 to 50 per cent. less than is received for sound eggs. Such eggs are perfectly good for food if used promptly or if taken out of the shells by a properly equipped and intelligent egg breaker, who freezes the liquid for use in the winter time.

Other eggs are so slightly cracked that the eye fails to see the defect. Such cracks are found by candling or by tapping the suspected egg against a sound one to get the "ring" of a perfect shell, or the characteristic "click" if it is damaged.

During the months of March and April, and generally during much of May, practically all eggs are of high quality except the infertile eggs and rots that many farmers take from the incubator and offer as fresh to the storekeeper or shipper. Because of the high average of good eggs, the grading during these months is largely concerned with size, cleanliness, and soundness of shell.

Cracked Eggs Lower Prices

Because there are so many lightly cracked eggs and because they will bring a lower price is put in cases by themselves, most shippers have gotten into the habit of including about 5 per cent. of cracked eggs in the cases of supposedly sound eggs. This practice has continued so long that the receivers in cities have adjusted prices accordingly. On the average the shipper is really paid for just what he ships.

Very often the receiver blames the railroad for all the light as well as the heavy damage in the case; and since the inclusion of the 5 per cent. of light damaged eggs has become generally known, it commonly is supposed that it is these eggs which, being weak, are further damaged in transit. The investigators of the department, however, find that these light cracks, or even dents, if well packed, loaded, and transported, are only one-third more liable to damage than are the sound eggs similarly handled. If the cases are well packed and shipped in well-loaded car lots, the additional liability to damage is only about one-fifth of an egg per case. From the viewpoint of transportation alone the 5 per cent. of lightly cracked eggs appears to be comparatively unimportant.

Cracked Eggs Cause Serious Loss if Stored

From the viewpoint of cold storage, however, even lightly cracked eggs are of great importance. The investigators find that about 50 per cent. of the cracked eggs are rotten by November, generally because of a growth of mold. Sometimes the moldy crack resting against the filler, infects it and the egg in the next cell becomes moldy. Each leaking egg causes about two eggs besides itself to rot. On the other hand, good early spring eggs with sound, clean shells, show less than 1 per cent. loss from decay by November. In other words, 6 eggs in every dozen cracked eggs will rot, while only one sound egg

in 12 dozen will rot, all other conditions being equal. The cracked eggs are a heavy economic loss.

Loss \$94 per Car Load

Eggs at the eastern seaboard during the early spring are commonly worth about 20 cents a dozen. Carrying charges, including insurance, are usually about 2 cents a dozen. Therefore, the nine cracked eggs which are spoiled by November show a total loss, not only of their value when they were stored, which was about 15 cents, but also the carrying charges, or a total of 16½ cents. About 10 cracked eggs out of the 19, on the average, will not spoil, but are much lower in grade when coming out of storage than the sound eggs. They will be sold for about 33 per cent. less than the sound, good eggs, making, on a 25-cent. basis, another loss of 7 cents, or a total loss due to cracked eggs alone of 23½ cents a case, or about \$94 on a carload of 400 cases.

This loss of 23½ cents a case, which is believed to be a conservative estimate, quickly amounts up to imposing figures when the vast number of cases of eggs

that are stored is taken into consideration. In 45 cold-storage houses alone according to the report of the American Warehousemen's Association, about 3,750,000 cases of eggs were in storage on July 1, 1915. If these cases suffered the average damage, in these warehouses alone there would be a loss to the country of \$881,000 that might have been saved to the egg industry from producer to the consumer if shippers had been more careful in packing their early spring eggs.

KEYSTONE POULTRY FARM

The Keystone Poultry Farm, Guy E. Schreff, Mgr. Lincoln, Nebr., is one of the leading poultry farms in that section of the west and enjoys a wide reputation for square dealing and the quality of the stock sent out. The specialties are S. C. White Leghorns, Rhode Island Reds both combs and White Plymouth Rocks. They have a grand show record and have honors to their credit at many of the great mid-west shows Chicago included. Full information regarding matings show record, terms and prices contained in their free circular and mating list. Mr. Schreff solicits the inquiries of all A. P. W. readers interested in either of the above varieties and feel sure he can give satisfaction in either stock or eggs. All he asks is, a chance.

8 TIMES MORE CHICKS

BY USING "OCULUM"

TRIAL BOTTLE (2400 CHICK DOSES) 10c
SAVE YOUR CHICKS. (It is Saving Thousands)

"I raised half of a recently hatched batch of thirty-two baby chicks with "OCULUM." All of them lived, while out of the other half but two out of sixteen survived White Diarrhoea, and this in spite of the other treatments given the sick chicks."

H. S. WETZLER, Manager Successful Poultry Journal, Chicago, Ill.
Our FREE BOOKLET also tells you HOW to make hens lay and roosters FERTILE.

H. I. CO., Inc. Box Q. SALEM, VA.

Columbian Wyandottes Are Gaining

in popularity. There has been large classes of wonderful quality this season. My birds won the State Championship Display Cup at the New York Palace Show in December, 1915. Then the leading winners of the year came together at the National Meet of the Columbian Wyandotte Club in Pittsburgh, January, 1916, and in this final and supreme test of the year I won the most coveted prizes, first cockerel and first pen. Also first and 5th pullet, 2nd and 3rd old pen, 3rd young pen, 3rd and 5th cock and 4th hen. Secretary's \$25.00 cup for the best cock, hen, cockerel and pullet. Specials for two best cockerels and two best pullets and a number of other specials. My 1st cockerel, 1st pullet and 1st pen out class every other cockerel, pullet and pen of this variety that has been shown in the world, this season. A few good males and females to spare. Eggs from the World's best exhibition matings, \$10.00 per 15, two settings \$18.00. No mating list.

LEVI A. AYRES, Box B, GRANVILLE, N. Y.

"How to Make Every Hatchable Egg Produce a Strong, Healthy Chick"

That's the title of a New Book, that is ACTUALLY WORTH \$100,000 to every Poultryman, or Woman, who OWNS, or OPERATES an Incubator. It tells you WHY CHICKS DIE IN THE SHELL. It tells you HOW to stop the LOSSES that come from "Dead in the Shell" chicks. It SHOWS YOU, clearly and plainly, just HOW YOU CAN DOUBLE YOUR POULTRY PROFITS. You don't have to buy anything, or OBLIGATE yourself to get it. PLEASE do NOT ask for it unless you own or operate an Incubator. Just clip the coupon and mail it TODAY. The book will come to you by first mail.

IT'S FREE

Please send me your FREE booklet.
I own a..... Incubator.
Name
Address.....

Reliable Poultry Specialty Co.
Mills St., Alexander, N. Y.

PREPAREDNESS IN POULTRY KEEPING

F. W. Kazmeier, Poultry Husbandman
Extension Service A. and M. College
of Texas.

Of course we believe in "preparedness." Farmers and poultry raisers should prepare for next year's crop of poultry. If they do not, they may have good cause to regret it later.

Breed from nothing but healthful, vigorous and constitutionally strong stock.

In selecting eggs for hatching remember that a small egg will hatch a small chick that will be weak, hard to raise and unprofitable when mature. Incubate only good sized eggs, weighing not less than 2 oz. each and of a color characteristic of the breed. Abnormally large or small eggs should not be hatched.

Do not hatch any eggs older than ten days. The fresher the eggs the better they hatch and the stronger the chicks. When saving eggs for incubation keep them in a temperature as close to 58° to 60° as possible. Keep them covered and in a fairly damp place. Do not wash hatching eggs.

When the eggs-for-hatching are purchased it is advisable to dip them into a 92% solution of alcohol or in a 2% or 3% solution of some standard disinfectant like Kresol or Zenoleum because some-

times disease germs adhere to the outside of the shell.

Dust the hen with some good lice powder before placing the eggs under her. Repeat a week later and again if necessary. Watch the hen, nest and nesting material for lice and mites.

The number of eggs to be placed under a hen depends on her size and the season of the year. The usual number a medium sized hen can comfortably cover in the natural season is fifteen. During very warm weather this hen perhaps could cover seventeen eggs. If possible set two hens at the same time and give all chicks hatched to one hen.

The best feed for a setting hen is whole corn, fresh water and grit. Provide these in such a way that she can get to them at will.

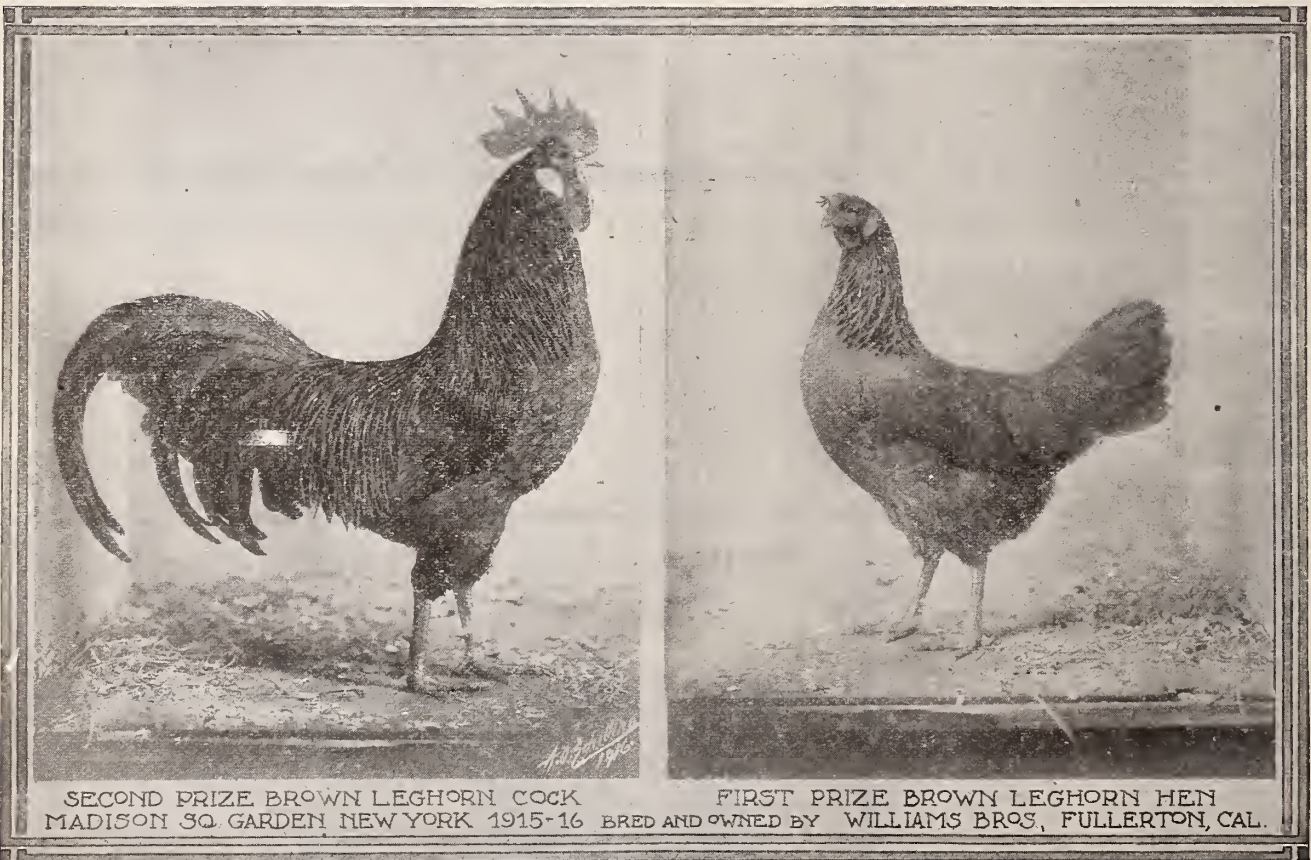
Watch the hen as much as possible, because frequently things happen that require attention. As soon as chicks are hatched, dry and lively, grease them on head and neck with common lard. This kills the lice that may be upon them. Repeat this about once a week. Watch your chicks carefully for lice and mites.

The best incubator is the one that hatches the largest number of strong chicks. Some incubators hatch a large number of chicks, but they are weak and hard to raise.

After you have selected your machine,

uncrated and set it up, the next thing to do is place it level in all directions. Heat it up gradually. Start with a small flame. Use good kerosene. Operate the machine at least two days before placing any eggs in it. It is good practice to operate the machine empty until it is fully under the control of the operator. Place the machine in a room with a uniform temperature and plenty of fresh air without strong currents of air passing directly over or close to the machine. A room with a cement or ground floor is the best. This makes it possible to flood the floor once a day. This has been found very satisfactory. The first two or three days keep the temperature rather low, say 101° to 101½°, then raise the temperature to 103° and keep it there as nearly as possible until the 19th, 20th and 21st day, when it is advisable to allow the temperature to run up to 104° to 105°, but never higher. Keep the temperature as uniform as possible. Follow directions coming with the machine. Handle egg with clean hands. Turn eggs twice a day from morning of 3rd day to evening of 18th day. Study the ventilation of machine. Watch the lamp very carefully and inspect carefully the last thing before retiring.

*** What is your favorite breed? Just tell us all about it explaining why you believe them superior to others.



There seemed to be an unusual amount of interest shown in the S. C. Brown Leghorn classes at the Garden Show this year,—more than ever before. This is evidently an indication of increasing popularity in the good old Brown Leghorn. Quality is always abundant and among these classes especially in recent years we have noticed that type and color are gradually improving. As an example of modern Leghorn type, the cock shown in above illustration is one that may be considered with the choicest produced to date. He was a bird of elegant profile and beautiful feather development. In color he was superb, but unfortunately during his trip across the continent one of the females cooped with him plucked a large amount of his saddle feathers which destroyed to a certain extent his chances for winning first honors. Williams Bros., Fullerton, Calif., had their usual strong exhibit at the Garden Show and carried off the following prizes: 2-3-5 cock; 1-4 hens; 2nd cockerel; 4-5 pullet. The hen which carried off first honors shown above was a specimen of beautiful conformation and symmetry. She had a neat small comb, nicely turned, and an evenness and purity of top color that is uncommon. Williams Bros., Brown Leghorns have made remarkable records at the best shows held in the east as well as the west and today they enjoy a reputation as one of the choicest flocks of S. C. Brown Leghorns in existence.—A. O. Schilling.

Government Work For Poultry



Conducted by Homer W. Jackson

WHITE DIARRHEA IN CHICKS

Investigations at Massachusetts Agricultural Experiment Station and the Connecticut Agricultural College have Thrown Much Light on the Dread Disease. The Agglutination Test

AT this season, interest in the above subject always becomes acute and the following extracts from Bulletin No. 163 from Massachusetts Agricultural Experiment Station entitled, "White Diarrhea in Young Chicks in Massachusetts" is especially interesting. It gives a full statement of the "agglutination" test as a means of detecting hens infected with the disease.—H. W. J.

Bacillary White Diarrhea in Young Chicks in Massachusetts

FROM the work of these investigators (see bulletin for review of literature—Ed.) the conclusions are justifiable that *Bacterium pullorum* can produce a white diarrhea; that the hen is the original source of infection; and that the disease may be transmitted from the ovary to eggs for hatching. The carrier problem thus is one of great importance.

The question also arises as to how ovarian infection may be brought about. Experiments were conducted for three years at the Storrs Experiment Station concerning this point, and one question which was answered positively by the results of this work and substantiated here in Massachusetts was, "Do chicks which survive an attack of bacillary white diarrhea become permanent carriers of the disease?" The results here at the Massachusetts Agricultural Experiment Station, and those from the experiment station at Storrs, are very decisive, and demonstrate that pullets infected as chicks may become permanent bacillus carriers.

Since it has been shown conclusively that infected ovaries constitute the real source of infection in bacillary white diarrhea of chicks, the basis of prevention rests to a great extent upon this significant fact.

Attempts have been made to apply various tests for locating this infection in adult hens, but the microscopic agglutination test which is discussed later in this paper, has proven reliable and practical for testing the blood of mature stock. The results reported in Bulletin No. 148 of this station, together with those reported from Cornell and Connecticut, demonstrate that the value of the microscopic agglutination test can no longer be doubted. It furnishes a practical method of diagnosing infection in

adult hens. It is inexpensive and reliable, and up to the present time nothing has occurred to detract from the merits of the test. In the hands of properly qualified persons, and carried out under observation of the laws of pathology, both from the standpoint of the study of disease and eradication of disease, as indicated by our record to date, it is fast proving to be more and more valuable as



COLUMBIAN ROCK PULLET

This beautiful pullet traveled all the way from Illinois to San Francisco, where she won first prize at the Panama-Pacific Exposition. A few weeks later she made a trip to the Atlantic Coast and was successful in winning first honors at Madison Square Garden. Altogether this little lady traveled upwards of 9000 miles and not only set a record for distance traveled but also won honors that no other individual of the variety has succeeded in doing. This female was produced by Jas. H. Taylor, Woodstock, Ill.

a means of detecting birds which may be a source of infection to young day-old chicks.

Therefore, with this consideration, nothing should stand in the way for proper authorities to make it possible for the present workers in this field to continue this important work and apply the test extensively throughout Massachusetts, and aid in ridding breeding flocks throughout the State of these permanent carriers of *Bacterium pullorum*. Backed by our present data from the laboratory, this work could be carried on with every promise of success.

As the presence of *Bacterium pullorum* infection in a flock is strikingly indicated

by the death of a large number of young chicks, it is to be expected that the location of the disease can be readily determined by the examination of chicks which have died. It is by this means that we have obtained data in regard to most of the infected areas in the State. In two cases, however, the flock owners, believing from their chick losses that bacillary white diarrhea existed in their flocks, asked to have their adult birds tested without sending chicks for preliminary examination. Results of the agglutination tests gave proof that the disease was present in these flocks.

The Agglutination Test

While the microscopic agglutination test is of service in the location of bacillary white diarrhea infection, its greatest importance lies in the part it plays in the eradication of this disease by detecting in a breeding flock of adult birds which are acting as carriers of the organism *Bacterium pullorum*.

The two important biological factors necessary for making the microscopic agglutination test are (1) a test fluid containing a suspension of the organism causing the disease *Bacterium pullorum*, and (2) a sample of blood serum from the individual to be tested; and the test is based on the fact that the blood sera of infected and non-infected birds when mixed with the test fluid re-act differently. The serum of the former, because of the presence of an agglutinin, a substance formed in the body of the bird because of infection with *Bacterium pullorum*, is capable of producing, when brought in contact with a suspension of the organism, a clumping together of the bacteria, a phenomenon which blood from non-infected birds does not show.

In tests made on infected flocks readings of the tubes showed that in some containing test fluid and serum, fine, flake like masses had settled to the bottom and sides, leaving the supernatant fluid clear. In other tubes the mixture of test fluid and serum remained hazy as it was at the time tests were set up, and no flaky sediment appeared. In the first case it is evident that the serum contained an agglutinin which has caused the agglutination of the bacteria of the test fluid, and all birds with sera re-act-

KEEP THEM IN CONDITION To get a maximum winter your birds must be kept in the pink of condition from hatching to maturity. It has been proven that the feeding of Mustard to poultry promotes an increased egg production, and is also permanently beneficial to their health, vigor and stamina. **FRENCH'S POULTRY MUSTARD** is the original Poultry Mustard in America, pure and of great strength, hence only a small quantity is required for each fowl. The best results are obtained from its continuous use. Prepare your birds now for more eggs next winter. Booklet free. **THE R. T. FRENCH CO., DEPT. B., Rochester., N. Y.**

ing in such a way have been reported as positive re-actors.

In all districts of Massachusetts the organism has been found in young chicks, and also laying hens have been tested and found to be infected.

Being so generally scattered over the various areas of the State, poultrymen should be made aware of its prevalence and willing to co-operate in every way to stamp it out. It can be easily seen that in order to do this eggs used for hatching must come from sound, uninfected stock. This really is the only basis for improvement. The infected individual must be sought and eliminated from the breeding stock.

How Infection is Transmitted

At the present time poultry raisers may feel that their labors are hopeless if white diarrhea should make its appearance in their young chicks. It is not the object of this paper to discourage present and prospective poultry raisers, but, with

our methods of study, detection and control of this disease, to encourage greater effort in the industry. By thorough co-operation of poultrymen and laboratory workers a great improvement in raising young chicks must follow.

This infection is readily transmitted through eggs, day-old chicks and mature stock. Therefore, to insure against the infection poultrymen should buy only from stock known to be free from the infection. If all breeders would have their birds tested, and infected birds eliminated, their customers would be insured against buying infected stock. In other words, all stock should bear a stamp indicating tested and found negative.

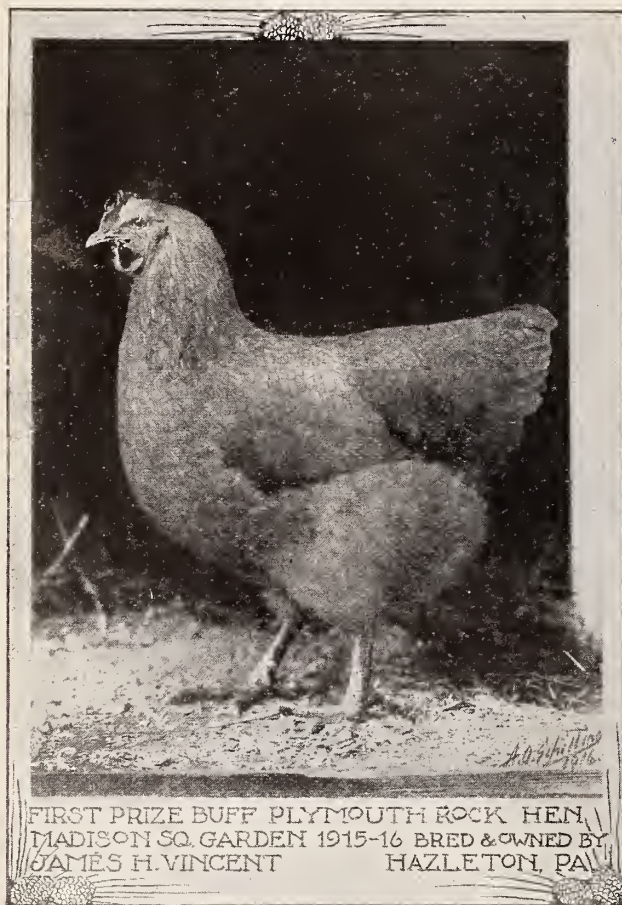
Wherever the blood test has been made and the positive re-actors eliminated a marked improvement has resulted in the young chicks hatched thereafter. Every poultryman co-operating with the Department thus for the improvement of his flock conditions by these methods has

been convinced that conditions have improved. All are unanimous in placing their stamp of approval upon the work thus far conducted, and all hope the work in connection with the problem of eradication may be carried through to a successful finish.

We believe that the results both of our scientific work and of its practical application may be confidently depended upon and that examination will convince even the most skeptical. Poultrymen who have suffered great losses will be unanimous in supporting the views of workers in this Department; i. e., that it is possible to rid Massachusetts for the most part of this disease, and that a campaign should be organized against bacillary white diarrhea infection.

Comment

I have read with special interest about everything that has been published in the last ten years with reference to the cause and cure of white diarrhea in chicks and am convinced that much has been done to clear up the problem by the investigations conducted at our various State Experiment Stations. There are, however, some phases of the



FIRST PRIZE BUFF PLYMOUTH ROCK HEN,
MADISON SQ. GARDEN 1915-16 BRED & OWNED BY
JAMES H. VINCENT HAZLETON, PA.

A VINCENT BUFF ROCK HEN

The Buff Plymouth Rock hen shown in above illustration represents Mr. Jas. H. Vincent's, Hazleton, Pa., first prize winner at the recent Garden Show. In order to appreciate the real merits of a buff fowl they must be seen in real life. The best a photograph can do is to illustrate the specimen's shape and body formation. While handling this hen at the recent Garden Show we were very much pleased with her excellent strength and quality of color. She was one even shade from head to tail and had the purity of color that is to be appreciated by breeders who know how difficult it is to produce choice exhibition Buff color. Combined with this color this hen possessed type of the proper kind as shown in the above illustration. She was not coarse and fluffy as many females bordering on the large order often appear, but possessed a refinement of profile and development in various sections that is unusual in a specimen of her size. Mr. Vincent's exhibit of Buff Plymouth Rocks at the recent Garden Show made an excellent record by winning the following prizes: 4-5 cock; 1st hen; 2-3-5 cockerel; 2nd pullet and 1st exhibition pen. They were a fine collection and as choice a lot as was ever exhibited by any individual breeder.—A. O. Schilling.


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AMERICAN POULTRY WORLD

BUFFALO, N. Y.

question that still are puzzling and on which more light—a good deal more light—seems to be needed. I think it is generally conceded now that white diarrhea in chicks is a symptom of a considerable variety of ailments, ranging anywhere from indigestion to bacillary infection. Poor food, wrong methods of feeding, irregular brooder temperatures, overheating, chilling, getting wet, all these and many other unfavorable conditions may bring on attacks of indigestion, "brooder pneumonia" or plain diarrhea or weakness causing diarrhea or resulting in ailments accompanied by diarrhea as a symptom and causing heavy losses, sometimes epidemic in appearance, but in no way connected with bacillary infection—at least so far as the layman can tell.

One thing that especially puzzles me is the fact that folks who are specialists in bacillary white diarrhea appear to find it in nearly all cases of diarrhea observed, while those of us who are not particularly looking for this disease recognize so many other causes of loss and only now and then meet a case that appears to be due to sure-enough bacillary infection. Is this because most of us are not able to detect bacillary white diarrhea when we see it, or is it because *Bacillus pullorum* is very widely distributed and can be found in almost any diseased chick or ovary, and in most cases is not concerned with the sickness or only indirectly so?

As I understand the situation, our knowledge of coccidiosis, which a few years ago was considered to be an important source of epidemic diarrhea in chicks, has reached the stage where it is conceded that the germ causing it is almost universal. It is liable to be found in the alimentary tract of any fowl, young or old, sick or well, and chicks are not at all liable to entertain infection to an injurious extent, provided they are properly fed and brooded and have strong, vigorous constitutions to begin with. In other words, while most chicks are infected with *coccidium tenellum*, the infection only develops to a serious extent when the chicks have previously been weakened by other injurious or unfavorable conditions.

The point I am raising is that if that arch-skeptic, John H. Robinson, should make the statement that the same thing is true about bacillary white diarrhea—that infection is general, like coccidiosis, and that chicks suffer from bacillary white diarrhea because of lowered vitality due to constitutional weakness, improper feeding or care, etc., and that, therefore, the cure for bacillary white diarrhea is not the comparatively hopeless task of stamping out infection but is simply a matter of building up the vigor of the breeding stock and taking proper care of the chicks, I don't see where to lay my hands on a convincing argument against such a statement.

As matter of fact, do not recent experiments point in this same direction? It has been shown at Storrs that milk-fed chicks are much less liable to the disease than others simply because they are better nourished and therefore better able to resist disease—any disease, for that matter. The following extracts are taken from the last Storrs Bulletin on this subject—Bulletin 80:



COLUMBIAN PLYMOUTH ROCK COCKEREL

The cockerel portrayed above won first prize shape and color special at the head of a quality class at the Coliseum Chicago, December, 1915. He was a most attractive specimen having a pure white body color and well marked hackle, saddle and tail. The contrast between the body plumage and these sections was most pleasing and no doubt made many new friends for this beautiful variety. Jas. H. Taylor, Woodstock, Ill., owner and breeder is making rapid strides in the production of high quality Columbian Rocks.

ENGER'S BARRED ROCK FARM
Have won more firsts, second and special prizes during the last three years than all our competitors combined at Cleveland, Ohio's Winter Show, and the Forest City Exposition, Cleveland's Summer Show. This great winning proves beyond all doubt they are **OHIO'S FOREMOST STRAIN OF BARRED ROCKS**. If it is a prize winner you want, write us today. Prices reasonable. Send for descriptive booklet. Fifteen acres devoted to Barred Rocks.
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S. C. WHITE LEGHORNS and S. C. RHODE ISLAND REDS

Our birds are bred for heavy laying, quick maturity and exhibition purposes. Buffalo and Silver Creek winners, in fact winners wherever shown. 2000 birds to select from. Eggs, stock and baby chicks. Can book a few more orders for eggs from our trapnested Tom Barron White Leghorns.

SEND FOR MATING LIST.

POULTRY DEPT. EAGLE BAY FARM,

F. A. House, Mgr.,

SILVER CREEK, N. Y.

A Wonderful Achievement With Columbian Wyandottes

In the two most remarkable classes of Columbian Wyandottes ever shown my birds practically made a clean sweep, viz: At New York State Fair and New York Palace Show. These winnings were:

Syracuse—2nd and 4th cock, 1st and 2nd cockerel, 1st, 2nd, 3rd, and 5th pullet, 1st and 2nd pen.

Palace—1st cockerel in a class of 23; 2nd, 3rd and 4th, pullet in a class of 25, 1st pen in a class of 8, 3rd hen in a class of 13.

I won the Wilburtha Championship Challenge Cup which represents the **Championship for the year in this variety**.

No such winnings were ever made by any other Columbian Wyandottee breeder.

My birds are beyond comparison and I have a large selection in young stock to sell. Yards are mated. Mating list ready January 20th.

Chas. D. Cleveland,

Sunnybrook Farm,

Box W,

Eatontown, N. J.

Hibbard's White Wyandottes



My winnings at the Greater Buffalo Poultry Show, 1914, speaks for the quality of my stock. I showed four birds only, and all were winners; 2nd Pullet, 2nd and 5th Hens and 4th Cockerel.

Considering that I competed against many of the best breeders in the United States and winning four ribbons on an exhibit of only four birds is evidence that my birds are of the right type.

My breeding pen included the above winners which have produced a fine lot of early hatched Cockerels and Pullets which I am offering for sale at reasonable prices.

If you want something for exhibition or breeding purposes write me for information. Let me book your order for delivery at your convenience.

M. H. HIBBARD,

RIDGEWAY, ONT.

The feeding of milk to young chicks has a most favorable influence on the growth and on the lessening of mortality of the chicks. It tends to prevent mortality from all causes, and if fed soon enough and for a sufficiently long period, greatly reduces the death-rate caused by bacillary white diarrhea.

There appears to be but one satisfactory explanation of the favorable influence of milk feeding on the mortality of chicks that were artificially infected with *B. pullorum* in the investigations of 1912 and 1914. The early and continued feeding of milk, whether sweet or sour, stimulated growth and vigor to such an extent as to materially increase the resistance of the chicks to the organism in question.

That this important function which milk possesses is not due to acids that may be present, or to bacteria, especially those of the acid-producing type, has been clearly

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demonstrated in our experiments. Whether the milk was fed as sweet or naturally soured, or acidified by means of *Bacillus bulgaricus*, the results were essentially the same.

Another phase of the subject that needs careful handling is the general circulation of statements regarding the prevalence of infection in Massachusetts. Until the subject is more clearly understood and the distribution of infection more definitely traced it would seem fairer all round to avoid calling attention to special localities or even states as centers for the spread of infection. Breeders in Massachusetts, for example, have good reason for protesting against giving undue circulation to the statement that flocks in their state are generally infected at least until it is shown whether they are any more so than those of their competitors in other states who are not handicapped by unfortunate publicity. Do we understand matters sufficiently well just now to warrant our throwing suspicion on the poultrymen of a whole state, and discrediting practically every breeder who cannot show a certificate from the Biological Department of his State Agricultural College?

Granting that infection is general—the chicken business still lives and chicks still grow. Granting, again, that the agglutination test does all that is claimed for it, is it practical, is it possible by inspection and certification to stamp out an infection which, it seems possible, is universally distributed? I am not arguing the case. I am asking for information. I admit, however, that it would take a very liberal supply of information to incline me favorably toward advocating such an Herculean task.

The work done in Massachusetts has produced definite results—undeniably so. Just how important the results are, or how generally it is going to be practical to apply them, I doubt if anyone can say at the present stage of the investigation. The effort to stamp out infection or to bring it under control both in Massachusetts and in Missouri, where the same methods are being adopted, will be watched with keen interest by all. In the meantime, the rest of us can safely place emphasis on the importance of correct methods.

Let us keep clearly in mind that probably, only a small fraction of the chicks that have diarrhea have the bacillary kind. And before committing ourselves to a too general demand for the agglutination test let us consider the rights of breeders whose business and whose livelihood are at stake and who may be made to suffer a greater loss at the hands of well-meaning friends than would be caused by the disease we are trying to combat

A REPORT OF FEBRUARY HATCHED PULLETS

The Following Interesting Article is Taken from the November Issue of the Journal of Instructors and Investigators in Poultry Husbandry.

IN recent years it has been thought that the April hatching of Leghorns was the most economical practice, as early hatched Leghorns, on account of their development at four and one-half months of age, usually went through a fall moult. In February, 1914, a large number of Leghorns eggs were hatched, from which on the first of August,

1914, were selected two hundred good pullets. These were placed in a laying house and accurate records kept for one year, with the following interesting results:

Average number of birds.....	190
Number of eggs laid.....	26,280
Highest per cent, production (April) ..	66.
Lowest per cent, production (Dec.) ..	0.2
Total cost of dry mash.....\$	33.44
Total cost of grain ration.....	206.09
Total cost of feeds.....	239.53
Total value of eggs.....	679.30
Total profit above feed.....	439.77
Average profit per bird.....	2.32

The above financial showing is due in large part to the heavy production and high prices received during August, September, October and November.

From the above figures it will be seen that the egg production during August, September and October was more than enough to balance the decrease which took place in November and December, when the birds moulted. The birds were fully matured and developed long before the cold winter set in, so that it was possible and practical to use their spring laid eggs for hatching purposes, another distinct advantage of the early hatching of the Leghorn Pullets.

—o—

The above is the first statement I have seen of a careful test of the money-earning value of very early hatched Leghorn pullets.

A number of egg farmers who want to have a supply of eggs during the fall make a practice of having a good flock of Leghorn pullets hatched in February, either disposing of them late in the fall just before they begin molting or, in some instances, carrying them over and using them as breeders the following spring, as suggested above. This should

provide a fine lot of breeding birds and should give much more satisfactory results than the common plan of using pullets hatched later in the year, placing them in the breeding pen near the end of a season of heavy laying—a practice that has more than a little bearing on the regular recurrence of complaints of poor hatches and the wide-spread prevalence of "white diarrhea".

—o—

MORE ABOUT COTTONSEED MEAL FOR POULTRY

Opinion Appears to Differ on the Proper Amount of Cottonseed Meal to be Used in Poultry Rations

I KNOW of no feeding problem about which more conflicting statements are made than with reference to the use of cottonseed meal and the proportions in which it should enter into the fowls' rations. At the time I prepared my review of the literature on this subject, for last month's Department, I did not have a copy of the December Journal of Instructors and Investigators in Poultry Husbandry, which contains a report of an experiment made by Prof. R. H. Waite of the Maryland Station. I am giving some extracts from this article, herewith, and they should be read in connection with last month's statements on this subject.

—o—

December 1, 1914, a feeding experiment to compare the values of certain protein concentrates in a ration for laying hens was started at the Maryland Station. Among the seven pens in the experiment were two which

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Some FINE COCKHRELS For Sale.

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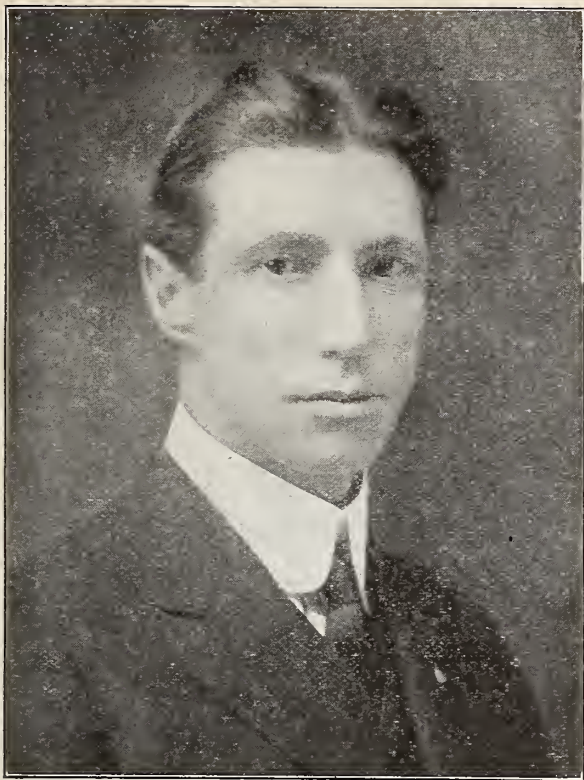
Cockerels from our 226 egg pen including four hens with eggs record above 230 eggs.

Baby chicks and eggs for hatching from twenty pens of trapped yearlings and two year olds, everyone a profitable producer. No drones. Stock old and young to offer at all times. For further information address

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BOX W.

FORT ANN N. Y.



The above picture is a good likeness of M. L. Chapman, who recently resigned his position at Rancocas Poultry Farms to accept a similar position at Wilburtha Poultry Farms, Trenton Junction, N. J. Mr. Chapman is a poultry man and judge of wide experience and C. J. Fiske the owner of the above farm made a wise selection when he placed Mr. Chapman in charge of his poultry.

received cottonseed meal in different proportions. Another received gluten feed as the protein concentrate.

The rations were as follows:

Pen No. 3	
Bran	100 lbs.
Corn Meal	75 lbs.
Middlings	100 lbs.
Cottonseed Meal	75 lbs.
Salt	2 lbs.
Corn	175 lbs.
Wheat	175 lbs.

Pen No. 4	
Bran	100 lbs.
Corn Meal	25 lbs.
Middlings	100 lbs.
Gluten Feed	125 lbs.
Salt	2 lbs.
Corn	175 lbs.
Wheat	175 lbs.

Pen No. 7	
Bran	100 lbs.
Corn Meal	62½ lbs.
Middlings	100 lbs.
Meat Scrap	12½ lbs.
Soy Bean Meal	25 lbs.
Cottonseed Meal	18¾ lbs.
Gluten Feed	31¼ lbs.
Salt	2 lbs.
Corn	175 lbs.
Wheat	175 lbs.

The egg production over a period of three months was as follows:

Pen No. 3, 10.67% Cottonseed Meal	267 Eggs
Pen No. 4, Gluten Feed	281 Eggs
Pen No. 7, Meat Scrap and 2.67% Cottonseed Meal	394 Eggs

While these figures show the cottonseed meal ration as decidedly inferior, still they do not show how really inferior it was. During the first part of February, every bird in Pen 3, if not actually sick, was in so bad a condition that it was deemed necessary to change the ration. The birds had colds, were dirty, pale and emaciated, feathers ruffled, and were the most unhealthy and un-

thrifty pen of chickens I ever saw. The other pens, in good condition, were in marked contrast.

The ration of Pen 3 was changed February to the following:

Bran	100 lbs.
Middlings	100 lbs.
Meat Scrap ..	50 lbs.
Salt	1¼ lbs.

The change in action and appearance of the birds was immediate and remarkable. They consumed more feed, laid more eggs, and gained weight.

I do not like to draw conclusion concerning cottonseed meal as a feed. They require revision too often. But I am satisfied that 10% in a ration is too much, and I would not be afraid to use 2.5% in a ration for laying hens.

—O—

Feeding Cottonseed Meal at Government Experiment Farm, Beltsville, Md.

In the last Annual Report of the Bureau of Animal Industry, Department of Agriculture, Washington, D. C., the following statement on this subject is made:

Unsatisfactory results have been obtained from the the pens fed cottonseed meal, only about one-half as many eggs being laid by these hens as by those fed beef scrap, while the eggs cost from 20 to 50 per cent, more to produce. Some of the eggs from the pens fed cottonseed meal have had spotted and discolored yolks, which practic-

ally spoil them from a market standpoint. Experiments are being conducted to determine the cause of these discolored yolks.

Professor Waite is a careful and reliable investigator and his results, taken in connection with the Government experiments at Beltsville, certainly will go far to confirm practical feeders in the belief that cottonseed meal has little to offer them as a source of protein. It will also increase our anxiety to hear from some one who has made a thorough test of the "Clemson College Ration" with its 30% of cottonseed meal.

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DUCK RAISING

Commercial Duck Raising Appears to be Decreasing Everywhere Except in New York State

THE United States Department of Agriculture has recently issued a bulletin on Duck Raising (Farmer's Bulletin No. 697). Some general information is given in the following extracts, but for details of successful duck raising, including description of breeds, methods of selecting and mating the breeders, management of incubators and brooders, methods of feeding and marketing, etc., send for the complete bulletin, addressing Division of Publications, Department of Agriculture, Washington, D. C.

According to the census of 1910, there were 2,906,525 ducks in the United States, valued at \$1,567,164, showing a decrease in number of nearly 40 per cent. as compared with 1900. It should be stated, however, that the animal census of 1900, was taken June 1, and that of 1910, April 15, which fact would considerably reduce the above percentage, although only fowls 3 months old or over were reported in both cases. Ducks were reported on only 7.9 per cent of the farms in the country and are most numerous in the following States, arranged according to their production: Iowa, Illinois, New York, Pennsylvania, Missouri, Tennessee, Indiana, Kansas, Oklahoma, Arkansas, and Ohio, the number ranging from about 225,000 head in Iowa to 106,000 in Ohio. New York is the only one of these States which shows an increase in the number of ducks, while all the others show a marked decrease. Long Island, N. Y., contains a number of large commercial duck farms, which apparently are quite successful. It would appear, therefore, that commercial duck farms are increasing somewhat, while the production of ducks on general farms as a side issue is decreasing, especially in the Middle West.

Duck Farming

Duck raising on a large scale has been developed as a special business to a considerable extent on Long Island and in sections within easy shipping distance of New York City, Boston and Philadelphia. Intensive duck farming on a large scale has, in fact, been more successful than intensive chicken raising since Pekin ducks, especially, stand confinement well, are more easily brooded, and are less subject to disease than chickens. Artificial methods of hatching and rearing and labor-saving machinery have been used very successfully on duck farms. The demand for table ducks at good prices is largely limited to the large cities and is not nearly as general as the demand for chickens or fowls. The demand appears to be gradually increasing but this lack of a wide market materially influences the establishment and growth of duck farms. The market conditions should be studied carefully before a large investment is made in ducks. A prejudice against duck flesh and eggs exists in many places, caused probably by eating the common or "puddle" duck, which has been allowed to roam in places where filthy conditions existed.

Marketing Duck's Eggs

The demand for ducks' eggs at a price is limited and not nearly as general as the demand for hens' eggs. The quality of ducks' eggs on the average market was poor until people began to keep Indian Runner ducks and to build up a trade in first-class eggs. A good demand for ducks' eggs exists about Easter time at prices usually several cents a dozen higher than for hens' eggs, but during the balance of the year the average price for ducks' eggs has been about the same as for hens' eggs. Most buyers make no quotations for ducks' eggs except early in the spring. Since three ducks' eggs weigh about the same as four hens' eggs, ducks do not appear to be as profitable for the production of market eggs as fowls. A trade

is gradually being established in some markets for fancy near-by ducks' eggs which bring higher prices than hens' eggs, and the demand seems to be increasing. Pure white eggs are preferred and usually bring the highest price. These eggs should be marketed frequently, as they depreciate in quality more rapidly than hens' eggs, especially during hot weather. The market for eggs should be carefully investigated by those who intend to raise breeds of the egg-laying type of ducks, such as the Indian Runner.

SQUAB RAISING

Government Experts Compile Information That Should Prove Highly Valuable to Pigeon Raisers

A NUMBER of years ago the Department of Agriculture published a Farmer's Bulletin on Squab Raising that attracted considerable attention—not all of it favorable. I remember interviewing practical squab growers about that time who insisted on treating the bulletin as a "joke." The chief criticism against it was that it gave too favorable an impression of the possibilities of the business, and in details of methods, and otherwise, was based on too limited experience.

Farmer's Bulletin No. 684, recently published, is a more practical and satisfactory presentation of the subject and the data in regard to prices, production, etc., appear to afford a safe basis for estimating possible returns in the business. Most of the figures in regard to prices, production, etc., have been secured from owners of practical squab plants. The statements from these practical squab growers are given in averages and appear to offer us something definite to figure on.

The following extracts will be of general interest. For details in regard to houses, feeding and marketing, send for the complete bulletin. Address Department of Agriculture, Division of Publication, Washington, D. C.

Pigeon raising is conducted successfully as a special business, also as a side issue

on a small scale in towns and cities and on general farms. The demand for squabs, especially in large cities, is gradually increasing.

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130-Egg Incubator and Brooder
Freight Paid East of Rockies
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WEST NYACK, N. Y.

creasing. Squabs are often used to replace the supply of dressed game which is decreasing in this country. The supply of squabs, however, appears to be increasing about as rapidly as the demand, judging from the average price. An average annual profit of \$1.50 per pair of breeders is considered good on successful plants producing only squabs for market.

Success in a special calling requires experience, business ability, and a good market. Most of the large successful pigeon farms make a business of selling breeding stock and are not devoted primarily to the production of squabs for market. There have been many failures on squab plants, as the profit in this business has frequently been greatly overestimated and the care of the stock regarded as something very easy in which anyone could succeed.

Varieties Suitable for Squab Raising

The Homer is one of the best squab producers because it is prolific and is a good feeder and mother. It has been bred largely for racing or flying, and little attention has been paid to plumage color, so that we have a variety of colors in this breed.

The Carneaux pigeon has recently become popular as a squab producer in this country. This variety is somewhat larger than the Homer and is claimed to be about as prolific and as good a feeder. Size is important in the production of squabs, as their value varies directly with this factor. The Carneaux has a variety of colors, but those with red and yellow shades are most common. The variety appears to equal the Homer as a squab producer, although it is not as widely distributed in this country.

The production of squabs from each pair of breeders varies from 1 or 2 to as high as 10 or 11 pairs a year, but an average of from 6 to 7 pairs is a fair estimate, although some squab breeders do better than this. Squabs usually sell at the highest prices during cold weather, as pigeons do not breed as freely during the winter as during the spring.

Squab Prices

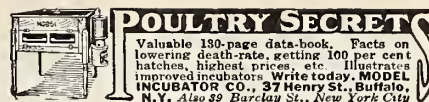
The price paid for squabs varies with their size, quality, and the season of the year. The quotations on the New York wholesale market in March, 1915, were as follows: Prime White,

10 pounds to the dozen, per dozen, \$3.75; 9 pounds to the dozen, \$3.50; 8 pounds to the dozen, \$3; 7 pounds to the dozen, \$2.25 to \$2.50; 6 to 6½ pounds to the dozen, \$1.75 to \$2; dark, per dozen, \$1.25 to \$1.50; culls 50 to 75 cents. The price on squabs weighing 8 pounds to the dozen, which is fair average weight from good squab plants, varies about as follows throughout the year, according to the wholesale quotations in New York: February, \$4; March and April, \$3.25; May and June, \$2.75; August, \$2.50; and December, \$3.50. A summary of reports from 22 pigeon farms showed an average weight of 9 pounds to the dozen and an average price of \$3.43 for the year.

Data Secured From Large Breeders

A list of questions on pigeon raising was sent to pigeon breeders throughout the United States, and, among others, replies were received from 22 large breeders who kept from 300 to 2,200 pigeons and produced squabs for market. The records from these breeders are considered more applicable to the commercial production of squabs than the replies which were received from breeders keeping only a few pigeons for home use or pleasure. These large breeders reported keeping the Homer and Carneaux varieties almost exclusively for squab raising, with a comparatively small number of the Dragon, Maltese Hen, and White Kind mentioned. All except one breeder kept these pigeons con-

(Continued on p. 526)



Laywell White Wyandottes

Bred for vigor, laying ability and exhibition quality. Pens mated by Arthur G. Dunston. Made clean sweep at the Vermont State Fair 1915.

Eggs from pens 1-5, \$5.00 per 15.

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the biggest egg records possible from Leghorns, buy May hatched chicks. The biggest laying records on this breed are all practically made from May or later hatched Leghorns. It pays to be slow some times. For the past five years we have carefully looked up the records our customers have made in quantity of egg production, from birds hatched from February to August, and nine times out of ten the later hatched chicks have averaged the most eggs during their pullet year. We have sold chicks as late as July 8th that laid 252 eggs. The pullets that have been laying 50% to 65% this winter were hatched after the 15th of May.

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THIRD PRIZE S C RHODE ISLAND RED CKRL.
BOSTON SHOW JAN. 1916 BRED AND OWNED BY
OWEN FARMS VINEYARD HAVEN, MASS.

Owen Farms, Vineyard Haven, Mass., won third prize in a class of 29 S. C. Red cockerels at the recent Boston Show with the subject shown in the above picture. The illustration shows him to be a bird of good size and unusual type, well balanced and very symmetrical in every way. He has a long, broad level back and the body is carried horizontal, with the head and neck slightly forward. These are two of the distinguished characteristics of a high class typical Rhode Island Red male. When these qualities are combined with color we have an individual whose value is only determined by the breeding behind him. Owen Farms Rhode Island Reds have been winners against all comers in competition with the choicest from the breeding yards of the best specialists of this worthy variety at the various large shows held during past years. It is often the case in competition such as we find in the Red classes at New York and Boston, where Owen Farms Reds have been winning the highest honors that there is very little choice between the ribbon winners, especially between first, second or third. It requires type, color, conditioning and training to win in this competition and a bird that is successful in being awarded a ribbon may generally be considered a valuable specimen. We appreciate a bird that has type such as the one shown in the accompanying picture and we are pleased to note that Owen Farms have shown better type Reds than ever before during the past season.—A. O. Schilling.



ANOTHER VIEW OF THE MCCONNELL SIXTEEN-HOUSE-AND-YARD BREEDING PLANT

Fig. 2.—This view is made from two photographs taken December 6th, 1915, by Franklane L. Sewell. The McConnell residence and garage is shown at the right in the picture. Left of the residence is the feed and shipping room. Between the feed house and the three large pepper trees (center of double view) is the cockerel house shown in Fig. 5 herewith. In other words, this cockerel house (also used for pair and trio matings) is near the residence and convenient to the feed house and shipping department. Notice the size of the kale in this picture, growing outside of the removable fences that form the sixteen breeding pens.

UNIQUE LABOR-SAVING POULTRY PLANT

By Grant M. Curtis, Editor.- Part 1.

(Continued from page 446)

than is the case with orange groves and oranges in the vicinity of Los Angeles, California.

Getting back to Mr. McConnell's unique sixteen-house breeding plant, it is the intention of the owner to build a summer house in the center of the circular space which forms the central part of this lay-out, see Fig. 1. At the time of our visit this area was planted to alfalfa. Said Mr. McConnell:—

"When visitors come to see me they want to talk poultry, as a rule. We need some place to sit down where we can be comfortable. What could be better or more inspiring than to sit in an open house such as I have described, located in the center of this circular space where we can see the sixteen

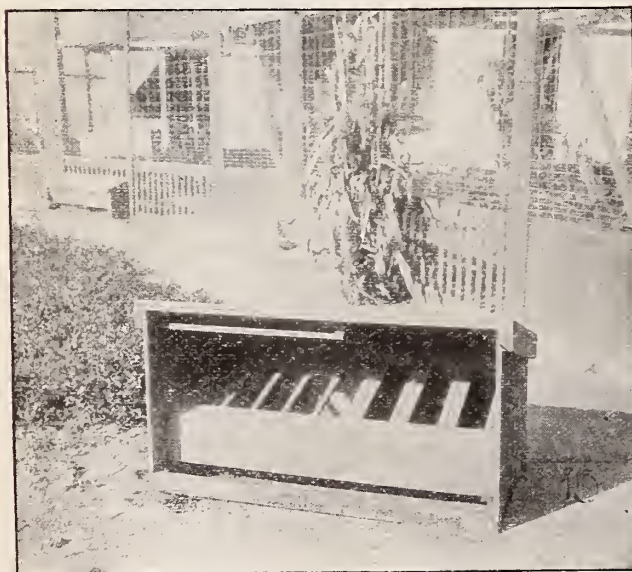
pens of select Minorcas mated for breeding purposes?"

Clearly, Mr. McConnell has "an eye to business." These are in fact "breeding pens." It is for that purpose that they are used exclusively. Much of the time during each year they are vacant, thus giving the vegetation a chance to grow, thereby purifying the soil. Five to eight females and a male are located in each of these sixteen houses. Every egg is kept for hatching or is sold for that purpose, except any that may be abnormal in size or misshapen. Here then each season are to be found many of Mr. McConnell's finest specimens. Sitting there in the new and comfortable summer house he can describe his methods, tell of his winnings, explain his matings, etc., to good advantage.

Before we leave this sixteen-pen lay-out, permit us to direct special attention to Figs. 3 and 4 herewith. Fig. 3 shows an original McConnell idea in the form of a large-sized outdoor hopper for use in feeding dry mash in combination with grit, shell and charcoal. Fig. 4 shows this device "taken apart," so to speak. Really it consists of four parts. The three shown in Fig. 4 and a drop frame (see Figs. 3 and 4) that is hooked against the roof on the under side. This thin board or muslin covered frame is used to cover the dry mash section of the feed hopper at times when the owner of the fowls or caretaker does not want the birds to eat any more of the mash feed.

Also in Figs. 3 and 4 is shown to ad-

vantage the inner fence of the sixteen-house lay-out. Note the construction of these fences, also the location of the wet mash feed hopper used for each breeding pen. The side of this hopper that rests against the slatted fence is entirely open. The fowls come to the slats and eat through them, reaching their heads into the wet-mash hopper. Of course dry-mash can be fed in these hoppers if desired. No more wet mash is fed at a time than the fowls are expected to eat up clean. The covers or slats to these wet-mash hoppers are hinged, hence at feeding time the caretaker pushes his wheel-barrow around this inner circle, turns back each lid, shovels or scoops the supply of food into the hopper, closes the lid and proceeds on his journey. Later he passes out of the circular area at the point he came in and thus gets back to the feed house without loss of space or time. At the time of our visit alfalfa was being grown in the center of this circular space—see Figs. 3 and 4.



MCCONNELL OUTDOOR COMBINATION FEED HOPPER

Fig. 3.—The dimensions of this hopper, outside case, are: length, 30 inches; height in front, 20 inches; height at rear, 14 inches. Dimensions of interior section (removable) of hopper are: rear, 8 inches; front, 4 inches; depth, 12 inches—see Fig. 4. protecting cover, keeping fowls out of contents of hopper, is made of wood slats. The entire device as designed and used by Mr. McConnell is of wood, good box lumber being used.

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McCONNELL OUTDOOR COMBINATION FEED HOPPER IN SEPARATE PARTS

Fig. 4.—For dimensions, see Fig. 3. herewith. Compartments (three in number) for grit, shell and charcoal are each five inches in width. Mash compartments holds big bucket of mash. Mr. McConnell also makes and uses a 4-foot size (four foot long) of this type of outdoor food hopper, using the large size for growing stock on range. In constructing a hopper like this do not forget the hinged lid as seen fastened to the ceiling of the box, in both Figs. 3 and 4, which lid is let down over the mash compartment at will, thus shutting off the supply of mash when desired. For use in sections where needed, a protecting hood can be built out over the front of this container box, thus protecting the contents of the hopper from rain or snow.

The large trees shown in Fig. 2 are the California pepper tree, with bright green leaves, resembling those of the locust, but much smaller. These trees bear red berries in clusters similar to currants. They have no commercial value, so far as we know. The trees to the left in Fig. 2 are English walnut. They were without leaves on December 6th, 1915, when Mr. Sewell took these photographs. However, the pepper trees were in full foliage at the time of our visit and were loaded with the small berries. These berries form a nuisance under the trees—so plentiful are they.

Confining ourselves more or less, in this article, to the unique features of Mr. McConnell's down-to-the-minute poultry plant (especially well-suited for Southern California) attention next is called to Fig. 5 herewith, which shows a cockerel house, so-called. The dimensions of this house are given under the picture. Here again we find emphasized the open nature of the climate in that section of our great country. This house—both sections—is roofed, including the roosting quarters and exercising apartments, but otherwise it is "wide open", so to speak. The two distinguished looking gentlemen to be seen in this picture are Mr. McConnell and one of his guests of December 6th, 1915. Down along the aisle, back of Mr. McConnell, the head-high doors that give entrance and exit to the separate pens are of the same open wire construction as shown in the rear-end view of Fig. 5. Only adult birds are located in these pens, hence the wire is of 4 x 4—inch mesh.

In these small but comfortable pens, Mr. McConnell practices pair and trio mating. Here he starts his different "families". For example, an exceptional line-bred male bird will be mated with a

special line-bred female, or vice versa. Now and then two females—perhaps sisters—are mated to the same line-bred male. In all cases the results are carefully noted in the progeny—are carefully studied! In J. V. McConnell we have one of the real students of poultry culture as regards the production not only of exhibition quality, as demonstrated time and again at the leading poultry exhibitions of the United States and Canada, but also as proved in the trap-nest. A producer of highest quality exhibition birds, he also has developed several families of prolific egg-yield Black Minorcas. Six or seven years ago one of his Minorcas, a six-pounder named "Queenie", made a trap-nest record of 272 eggs in three hundred and sixty-five consecutive days. More on this vitally interesting subject in the next article of this series.

Figs. 6 and 7 herewith show two of the substantial, permanent poultry buildings (that is, stationary) which form the McConnell ranch. We omitted to

state at an earlier point in this article that there are ten acres in this ranch, also that Mr. McConnell paid a thousand dollars per acre at a time when an old and practically worthless house existed on it and most of the land was covered with worn-out fruit trees and an underbrush of berry bushes, weeds, etc. This purchase was made three or four years ago. It costs a pretty penny to clear up the land, to put it in proper shape for artificial irrigation and to erect the numerous fine buildings now owned by Mr. McConnell. Every dollar of this money was earned by Mr. McConnell as a breeder of Single Comb Black Minorcas of Standard quality and the production of eggs for hatching and for market, which eggs were from Black Minorcas of his breeding.

In Figs. 6 and 7 is shown a six-pen

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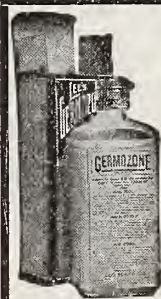
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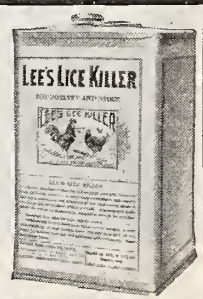
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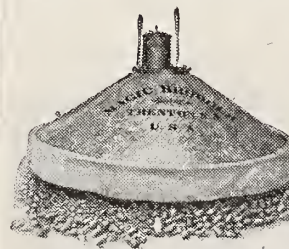
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UNIQUE COCKEREL HOUSE BUILT AND OWNED BY J. V. McCONNELL

Fig. 5.—There are twenty pens on each side. Roosting quarters enclosed shed-roof section at rear on each side, are 4x4 feet in size. In front of each roosting apartment is an exercising yard 4x8 feet, enclosed with 4-inch mesh wire. Exercising apartments are covered with tight roofs. Space back of this roof, between it and the lower roof, is built up in windproof manner. Doors entering exercising rooms are head high and a little better. At both ends of the area way (see where men are standing) are large doors that can be closed if desired. Feed troughs are located along the central aisle. Food is put into these troughs from the aisle and the fowls eat through slatted partitions.

breeding house in front, with a long brooding house at the rear, running parallel with the breeding house. Fig. 7 shows these same two buildings as seen from the residence side. The two-story building in Fig. 6 is the McConnell

that climate. This has been his experience reaching back over a long period of years.

Artificial incubation is used entirely on the McConnell plant. This also has been going on for years. Meantime, Mr.



VIEW OF McCONNELL SIX-PEN BREEDING HOUSE, ETC., FROM FIELD

Fig. 6.—Foreground shows nature of the soil. A sandy loam that drinks water like a sponge, but yields freely and bountifully under artificial irrigation. A modest and comfortable residence is shown in center of picture. Fine, large trees make the place attractive and homelike. Denuded tree in foreground is an English Walnut. Orchard of this kind owned by Mr. McConnell bears well each season.

residence and the long, low building at the left is a storage and automobile house. Beyond this (not shown in Fig. 6) is a feed and conditioning house. (see Fig. 2) one end of which opens toward the residence and the other end toward the passageway leading into the circular sixteen-pen breeding plant. The cockerel house (Fig. 5) is still farther to the left, but close by.

As may be noted by the pictures (Figs. 6 and 7) the six-pen breeding house and the long brooding house are substantially built. The breeding pens were full of choice birds at the time of our visit—see Fig. 7. The brooding house has cement floors (well covered with sandy loam when in use) and is heated by the hot-water pipe system. Mr. McConnell uses Prairie State incubators and reported that they give excellent satisfaction in

McConnell has built up an international reputation for producing Black Minorcas that range from one to two pounds above

Standard weight for females and from two to five pounds above Standard weight for males, therefore it may be said, with-

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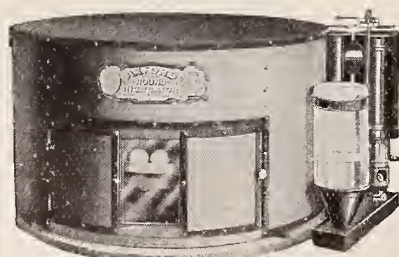


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out fear of contradiction, that artificial methods of hatching and brooding have not proved harmful or a handicap in his case in producing not only exhibition specimens and record layers, but birds also far above Standard weights.

Fig. 8 herewith shows another McConnell idea—one that is especially well adapted to the open climate and well-drained soil of Southern California. Here we have an excellent view of the long

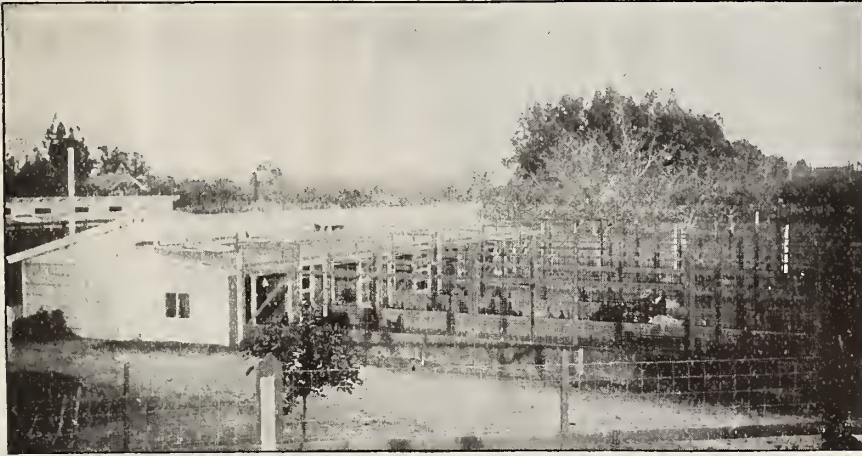
with these outdoor nest boxes. Quite often they are located up off the ground, about knee-high or somewhat higher, which is not a bad idea.

Picture Fig. 9 herewith shows an English walnut orchard that forms part of the McConnell ranch, in which are located several dozen 5 x 6—feet simple type colony houses for growing stock and surplus sale birds. Here the McConnell fowls have plenty of range and have a

the new crop gets a fair start. Then the fences are removed and the fowls do the rest—and do it gladly.

Often no fencing is done as regards protecting these fresh-plowed and seeded plats. On the contrary, the fowls are allowed to get after the newly sprouted oats, rye or barley at will. This they do without delay. As soon as the green sprouts appear the fowls "get busy" and keep busy, kicking away the sandy loam in order to reach the green tidbits, with the nourishing kernal of the grain thrown in for good measure.

The advantage of the use of a lay-out duplicating or similar to this sixteen-house-and-yard plan, are several and distinct, as herein touched on briefly. One of the most important is the "knock down" features of these houses and fences. While of much advantage in California, this "removable" feature of the entire breeding plant should be of even more value on heavier soil that is in still greater danger of contamination. To be able to move all these buildings and fences (or any other number) doing so



VIEW OF SIX-PEN BREEDING HOUSE AND BROODING HOUSE FROM RESIDENCE SIDE

Fig. 7.—Shows part of english walnut orchard to the right. Small tree in foreground is an orange tree. At right of residence, facing the plant, is a small grove of orange trees five years old, which was in bearing last December. Some of the trees were six and seven years old. They were full of fruit at the time of our visit. This small orange orchard is mainly for private use, but Mr. McConnell is planning to set out five or six acres to orange trees.

row of trap-nests that form part of the rear wall of the six-pen breeding house shown in Figs. 6 and 7 herewith. In Fig 8 Mr. McConnell (as a favor to Mr. Sewell) is seen in the act of transferring eggs from the trap-nest compartments to the special compartment (one for each breeding pen) wherein the eggs are placed several times during the day to await the last trip of the egg-gatherer, at which time the day's yield is taken to the storage room or shipping house.

As before intimated, there is no snow-fall, as a rule, in Los Angeles Valley, and umbrellas are useless baggage during seven, eight or nine months of each year, therefore the California poultryman, like the California fruit grower and floriculturist, does most of his work out of doors conveniently and comfortably. Even when it does rain the water disappears quickly, surprisingly so, and by the time you close your umbrella (if you have one) the sun will be shining brightly, or words to that effect. It is indeed a remarkable climate—to most of us.

To be able to gather the eggs several times daily, also to release the hens from the locked trap-nests after they have laid, and to reset the nests—doing this without entering the house or passing through the breeding pens, thus disturbing or frightening the birds, is indeed an advantage. Similar outdoor nest boxes are used in the Eastern and South-eastern parts of the country, also in Canada, despite adverse weather conditions. We saw them occasionally on numerous trips several years ago and they appeared to give satisfaction. The same arrangement is in common use in the British Isles. Many small-sized portable houses in England are built

"good show" for ample green food.

As a rule, this green food is secured by shallow-plowing or deep-dragging the light soil, then sowing oats, rye or barley, movable fences being put up until

DEER'S QUALITY WHITE ROCKS

EGGS — EGGS — EGGS
Write for a mating list. Some choice birds for sale:
F. L. DEER, FRANKLIN, IND.

ROSE COMB REDS

A few surplus pullets for sale. No eggs for sale this year.
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FAIR - ACRES ROCKS

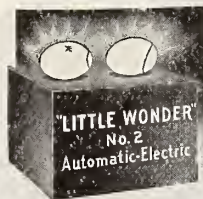
WIN AT THE GREAT BOSTON SHOW
White Plymouth Rocks. Buff Plymouth Rocks. First pen Bufts and 6th pen White. Also at Wakefield, Mass., 1st cockerel, 2nd cock, 1st, 2nd and 3rd pullet, 1st pen Buff Rocks, 2nd and 3rd pullet, 1st pen. Silver cup and gold special on White Rocks.

SOME REAL BARGAINS in breeding and exhibition stock. DAY OLD CHICKS and EGGS FOR HATCHING. WRITE ME FOR PRICE LIST BEFORE BUYING ELSEWHERE
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Send for descriptive circulars and testimonials, they will convince you! Here's one from the great Ancona breeder.

It is just what I have been looking for, would not take ten times the price of it, if I could not get another H. Cecil Sheppard, Berea, Ohio; June 17, 1915.

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The UTILITY POULTRY HOUSE and YARD

On wheels, easily moved, dimensions 10 x 10 feet, accommodates 18 fowls, easily cleaned, convenient, economizes space. Space 15 x 30 feet will provide clean runs all season. Ideal winter house, conserves animal heat.

THE IDEAL HOUSE FOR CITY OR TOWN BACK YARD

It solves the poultry keeping problems for the city or town dweller making back yard poultry keeping a pleasure and insuring success. Investigate this house. Reduce the high cost of living by starting with a pen of fowls and a UTILITY HOUSE at once. Positively the best colony house on the market regardless of price. Shipped knocked down F. O. B. express or freight for \$8.50. Agents wanted.

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REAR OF SIX PEN BREEDING HOUSE ON McCONNELL PLANT

Fig. 8.—Shows long row of trap-nests located outside the house so that eggs can be marked and gathered without entering the building and disturbing or frightening the inmates. Two men take care of this plant as a general rule, Mr. McConnell and one helper. The plant is compact as regards location of buildings and was put up by a practical man—a man who values his own time and does not want to pay out part of the profits in the form of extra wages for unnecessary labor. Probably Mr. McConnell might want to make a few changes if he were to build this plant again, but he said nothing of this kind to us and we regarded this poultry establishment as being one of the best laid out we have visited, size duly considered. Judging from what we saw and were told there is a strong probability that Mr. McConnell soon will outgrow this plant. He certainly is one of the "live wires" in the Standard-bred Poultry Business.

within half aday's time, and thus to be permitted to plough the ground, then sow it to a quick-growing crop and then to replace fences and houses, is indeed a valuable feature. As stated in the footnote under Fig. 1, we recommend this arrangement to fancier-breeders, especially on soil that is liable to become "sick" or get foul from long use.

In a number of ways raising poultry in California, from the southern end of the state northward five or six hundred miles beyond Petaluma is "a cinch", so to speak. The open weather, dry soil, good drainage, etc., are truly helpful. Chicks can be brought off at almost any time of the year out there, with good results. Mr. McConnell mentioned this advantage that California poultrymen possess as compared with the climatic conditions which exist along the 40th degree of north latitude, east of the Missouri River, throughout what is known as the poultry belt of the United States. Said he:

"You may be surprised, but it is a fact that if I find myself getting short of breeding stock or sale birds I simply begin hatching and producing some more, regardless of the time of year. This is not my general practice, but it easily can be done—and I have resorted to this method on several occasions. If well cared for, well fed, etc., our birds out here will develop to larger weights in a given length of time than is the case back in Ohio where I learned my first lessons as a poultryman, also in New York state, in New England, etc. I know this to be a fact, as a result of personal experience. Here on the Coast the Mediterraneans do extra well because of the mild and uniform climate. Our Minorcas, Leghorns, Anconas, etc., came from sections in Europe where the climate is quite similar to Southern California, hence here they feel right at home, as it were."

Mr. McConnell practices line-breeding, both in the production of exhibition fowls and in developing his prolific egg-yield strains, consisting of lighter weight Minorcas. He states his methods frankly, doing so with the freedom of a man who knows what he is talking about. Moreover, Mr. McConnell, as an ex-

pert breeder of high-class exhibition S. C. Black Minorcas, has "made good", as the saying is, therefore he has the courage to tell how he did it, to explain his matings, etc. Having succeeded to an extent that few other men have equalled in our generation of poultrymen, he has the "courage of his convictions", based on long-time production and proved repeatedly by prizes won, therefore he felt free to tell us what his breeding methods are and these methods are to be explained quite fully in next month's issue of A. P. W., forming Part II of this series of articles.

*** We would like readers suggestions on how we can improve A. P. W.



ENGLISH WALNUT ORCHARD USED ON McCONNELL PLANT FOR GROWING STOCK AND SALE BIRDS

Fig. 9.—There are three or four acres in this tract, as we recall it. December 6th, 1915, the trees were bare, but newly-sown oats or rye (we neglected to ask which) was coming up through the sandy loam and the birds were busy enjoying this treat and securing healthful exercise. On warm summer days these walnut trees with their liberal foliage furnish welcome shade for the fowls, young and old. It gets hot at mid-day during several months of the year in Southern California, but it is always cool at night, so the "natives" are quick to tell you. Fact is, if you were to listen to these natives, so-called, and were to accept their statements without discount, all the rest of mankind would move to California without delay, if they could get money enough together to pay their way. "Some Country", according to their enthusiastic testimony.

THE CARE OF BABY CHICKS

The following paragraphs taken from the catalogue of H. Cecil Sheppard, Berea, Ohio, the world renowned breeder of Anconas gives his method of caring for and feeding baby chicks and should prove of assistance to many A. P. W. readers. Mr. Sheppard uses and recommends Blatchford's Milk Mash and states that he would not attempt to raise chicks without it. Says Mr. Sheppard:—

After the chicks are forty-eight to sixty hours old, remove from incubator to brooder. Have the brooder thoroughly cleaned and litter on the floor. Fine cut clover or clover chaff makes an excellent litter. Have the brooder heated at 95 degrees before placing the chicks in it. Run brooder at this temperature until three weeks old, in cold weather. Gradually run temperature in brooder down so that it will register 90 degrees when chicks are six weeks old. Do not let the temperature fall below 90 degrees until the chicks are ready to leave the brooder.

On the third day, water and feed 20 per cent chick feed and 80 per cent grit after it has been thoroughly mixed. For fifty chicks put in a pint of feed and grit and let the chicks work in it. This teaches them to scratch and eat. Would keep them supplied with this for the third day.

On the morning of the fourth day scatter a little scratch feed in the litter and then water. About 9:00 o'clock feed Blatchford's Milk Mash moistened with milk or water. Use milk if possible. Be sure that you do not over-wet it. The mash should be crumbly so that it will not stick together. Feed in pans about 4 x 10 inches and about ½ inches deep. These can be procured at any tin shop at five or ten cents each. At 12:00 o'clock feed chick feed in a litter and water again. At 3:00 o'clock feed the milk mash. In the evening feed the scratch grain again. Remove the water vessels in the evening and wash before using in the morning.

Feed this way until they are three weeks old and gradually cut down their feeding to three times a day. Continue chick feed and mash until the chicks are nearly full grown. After the chicks are twelve weeks old you can add about one-third fine cornmeal to the milk mash.

In addition to this we keep Blatchford's milk mash in a hopper, dry, before them constantly. Keep charcoal and grit before them at all times. Green feed should be fed daily after they are three days old. Oat sprouts four inches long cut up fine with shears, makes a splendid green feed for chicks when lawn clippings cannot be procured.

I specify Blatchford's milk mash because it is the best we have ever used. If you cannot procure it from your local dealer, I would suggest that you send to Blatchford's Calf Meal Factory at Waukegan, Ill. The above information is given to you because we recommend it very highly and would not undertake to raise chicks without it.



EDITORIAL NOTE—This department will be devoted to answers to questions of general interest on practical poultry topics asked by subscribers and addressed to Editorial Department, AMERICAN POULTRY PUBLISHING COMPANY, Stafford Bldg., Buffalo, N. Y. Answers in this department are free of charge. Where two or more persons ask substantially the same questions, only one answer will be given. In asking questions try to send full information. The subscriber's name and address must be given [not for publication]. If a reply by mail is desired, be sure to enclose stamped addressed envelope.

Blood Spots-Spotted Shells

Q. I have twenty-four Barred Rocks pullets most of which lay eggs with brown spotted shells and others have a little blood spot of similar character on yolks which makes them unsaleable. Otherwise the birds are of healthy and vigorous growth. I keep grit and oyster shells before them continually and feed them scratch feed morning and evenings and moistened meat mash including ground table scraps at noon. Is there any way to prevent this trouble if so kindly advise. J. F. R., Cleveland, Ohio.

A. As to the color of shells of eggs produced by your pullets it is a matter that can be corrected only by breeding. It is not uncommon for hens or pullets to lay eggs with shells more or less spotted. This is an hereditary characteristic and as far as we can learn is not influenced by kind or variety of feed. To overcome this trait do not breed from individuals laying such eggs. Select eggs from the hens laying brown eggs of a uniform shade and also bear in mind to not use a male at the head of a breeding pen whose dam produced eggs with spotted shells. By careful selection you should produce pullets that next season would lay eggs of nearly a uniform color.

Regarding the blood spots on the yolks it is a different matter and is believed to be caused from the rupture of one of the small blood vessels in the ovaries or egg cluster. As there is no other escape for blood coming from this source it naturally drops into oviduct with the yolk and in the process of receiving the albumen it is enclosed with the yolk. The egg for home use is not damaged any but of course, the presence of these spots make them unsaleable. Whether or not a ration too stimulating in its effects would cause this trouble we are unable to say, but it is our belief that any ration, carrying stimulants such as beef scraps in large quantities, green cut bone, condiments, etc., etc., would be inclined to effect the egg organs influencing the rapid development of egg thereby, making the possibility of a rupture of one of the small blood vessels in these sensitive organs much greater than where a more moderate ration is fed.

Then again when crowding for egg production or feeding an extremely rich ration the germ is greatly weakened, fertility is lowered and the resulting chicks do not have the strength and vitality of those that are fed more as nature intended. All of these things contribute to little constitutional weaknesses that manifest themselves in different ways. The presence of blood spots may indicate such a weakness.

Ration for Laying

Q. I have two flocks of Orpingtons one black and one white. They are high class birds but are not laying as I think they

should and I think something is wrong with my feeding methods. I am feeding cracked corn in the evening and wheat in the morning thrown in a clean litter of straw. They get plenty of grit, fresh water often and plenty of green food, also fresh ground bone once daily. I average about two eggs to every six birds daily which I consider very poor laying. Will you kindly give me a good laying ration, grain and mash also a good growing ration for chicks up to maturity? L. P. P., Baltimore, Md.

A. Your feeding is good as far as it goes but should be supplemented with a good mash fed either wet or dry. One of the most successful Orpington breeders in the country uses the following mash: Ground oats, 50 lbs.; Bran, 25 lbs.; Middlings, 25 lbs.; Beef scraps, 10 to 15 lbs. This is fed in hoppers and the hoppers are kept open in the afternoon. In your case where ground bone is fed freely—almost too much so—the beef scraps should be omitted from the above. Feed your grain in deep litter to insure plenty of exercise, and look closely to the condition of the droppings as it may be that the abundant supply of green bone is causing diarrhea which would greatly affect laying. If this is found to be true reduce the supply until conditions are corrected. For ways of feeding chicks that have brought success to others we refer you to the article in the March issue entitled, "First Care of Chicks".

Pork Cracklings

Q. Are Pork Cracklings as good for poultry as the commercial beef scraps. The lard is practically all extracted. I can buy them for two cents per pound by the hundred. I can get buttermilk for 1½ cents per gallon. Which is cheaper the cracklings or the

buttermilk. Is skimmed milk better than buttermilk? N. S. T., Muncie, Ind.

A. No. The cracklings contain but a very small percentage of protein and would not make a satisfactory substitute for meat scrap. At two cents per 100 pounds, they would be a very expensive feed as the most they would supply would be fat and as most rations carry an excess of this element it would be poor policy to add more in this form. At 1½ cents per gallon the buttermilk is cheaper by far and is to be preferred. It could be used to mix moist mashes and also supplied as a drink for the fowls. In comparison with skim-milk we are told by those who have conducted experiments that it ranks a trifle higher in feeding value. Where a constant supply of either Buttermilk or skim-milk is available meat scrap may be omitted from the ration.

An Old Question


Q. I have a pen each of Black and Buff Orpingtons and would like to ask if they will mix if I mate them both in the same yard that has a division fence between the two pens? W. K. M., Ashland, Pa.

A. This is a question that caused much discussion some years ago but as those believing in the affirmative were decidedly in the minority and could offer no substantial proof for their claims the question of two varieties mixing by

OAT SPROUTER \$2

For \$2.00 you can build the best Oat Sprouter on earth, easiest to operate. A boy with a saw and hammer can make one in an evening. Plans 25c.

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LAMBERT'S
DEATH TO LICE**

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Successful Poultrymen
Because **Clean Fowls**
It Insures

Is just the thing for sitters, as it does not harm eggs or chicks. Keep your hens free from lice and they will thrive and be profitable. 100 oz. \$1.00; 48 oz. 50 cts., 15 oz. 25 cts. Large sample of Powder or Headlice Ointment 10 cts. "Secrets of Success with Poultry" by D. J. Lambert for 2c stamp.

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KILLS LICE AND MITES

Disinfects the Hen House, Brooder and Incubator. Cures Roup, Scaly Leg, Canker, Cholera. Prevents White Diarrhoea.

Endorsed by 50 Experiment Stations.

DISINFECT THE INCUBATOR

Prof. W. R. Graham, Poultry Expert for the Ontario Agricultural College at Guelph, reports:

"We have succeeded in hatching 7 to 9% more chicks that grow and live well by washing the machine with a 10 per cent solution of Zenoleum before putting in the eggs. It proves of greatest value in maintaining the vitality of the chicks. I would use this substance in every machine set."

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"Each year we use more Zenoleum in incubation. We dip our eggs and wash the incubators. After several years of thorough trial we are convinced it is very much worth while. We now use 185,000 eggs at a setting and Zenoleum is used on every hatch, just as it used to be when we set only 6,000 at a time."

OUR GUARANTEE: If Zenoleum is not all YOU think it ought to be, you can have your money back. Quart 60c; Gallon \$1.50.

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being penned in adjoining yards no longer causes any uneasiness with breeders of today. There is no more danger of your varieties mixing when running in adjoining yards than there would be in chickens and ducks mixing if they were penned in adjoining yards. The only element of danger in running pens of two varieties of Orpingtons or other fowls side by side is from carelessness on the part of the attendant in leaving gates or doors open or in not keeping his fences in good repair. With Leghorns the danger of the birds flying over the fences is always present and high fences or covered runs are necessary unless the flight feathers of one wing of each of the specimens are clipped.

Lameness in Turkey Tom

Q. I have a young turkey gobbler that can't stand on his feet. At first only one foot was affected but it has passed over to the other. The points are swollen and the legs red and hot. He eats well but has a diarrhea with a very bad odor. What can I do for him. C. S., New Brunswick, N. J.

A. This looks very much like an aggravated case of rheumatism. We would suggest that you place the bird in a warm dry well ventilated place, then give a good purging with epsom salts, a good teaspoonful to a dose. The salts for convenience may be dissolved in a small quantity of water and given or, the water may be used to mix a small quantity of soft food. Bathe the inflamed portions of the legs with Arnica or warm witch hazel. If the diarrhea persists after the first dose of salts repeat the dose in 48 hours. Feed on a light ration of soft feed until improvement is apparent, stale bread soaked in milk with a little bran added is good, then gradually restore the regular ration. Green food such as lettuce, sprouted oats or spinach in moderate quantities should be supplied. Procure some poultry mustard and divide a teaspoonful into five portions. Mix one portion with enough soft food to make a fair sized pill and give this once daily.

Mixing of Breeds—Soft Shell Eggs

Q. I have a pen of S. C. Reds and a pen of White Rocks. I have been told that they would throw off-colored feathers or mix breeds as there is only a wire fence between them. As they are prize birds I would hate to have this happen. What is the cause of soft shelled eggs. I have found in the last two days, four were dropped on the roost. As the have plenty of grit and oyster shell, I would be very glad if you tell me what they need? Mrs. B. M. B., Lansing, Mich.

A. You need have no fear of your birds mixing if your fences are tight and you are careful to keep the gates and door closed. The only way a mixture or crossing of the varieties could possibly occur would be by contact and as long as you use care to keep them separated there is no danger. Regarding the soft shelled eggs we can only make a suggestion as you omitted to state your method of feeding. The laying of soft shelled eggs is believed by many to indicate a lack of lime in the ration. This may be so in some cases, but my observation leads me to believe that the trouble is more often caused by feeding too rich or too stimulating a ration. That is a ration too rich in meat foods or condiments that stimulates the ovaries or egg cluster causing the too rapid ripening of the yolks and the improper functioning of the oviduct. If you are feeding heavily of meat food,

reduce the quantity or add an extra amount of bran to your ration. If you are using condiments of any kind you should do so with caution. A healthy hen needs nothing outside of good food in the production of eggs.

Color or Shell

Q. Would like to ask if you believe the feed given to poultry has any influence on the color of the shell of the egg? J. M. D., Wells Beach, Me.

A. No. The color of the egg shells of our domestic chickens are divided into two distinct classes. The brown and the White. The laying of either color is an hereditary characteristic and when we find a Leghorn or any of the Mediterranean breeds laying tinted or brown shelled eggs we immediately conclude that they are not of pure blood. The same is true of the heavier breeds that are known to lay brown eggs.

To return to the color of shells laid by different individuals we are fully aware that these vary in tint or intensity of color especially in the Brown egg varieties. This, of course, is a physical characteristic of the individual specimen and is governed by nature. That feed does not influence the color of the shell I believe is borne out by experiments in color feeding at Cornell. In a series of experiments conducted there, they were able to feed various colors into the egg contents but no mention is made of the color of the shell being affected in any manner.

Which Variety of Sussex

Q. Which of the Sussex varieties are likely to prove the most popular? I have never seen a Speckled Sussex. If I like the Red would I make a mistake in starting with them. H. K. B., Clarksville, Pa.

A. This is a rather hard question to answer and as we do not possess the faculty of looking into the future we will have to pass it up and confine our reply to a few comments on the breed. The Sussex have many strong points to recommend them and their popularity with American breeders will depend entirely upon the publicity that the supporters of the breed are able to give them. They are making a fairly good start by organizing a club which consists of some very progressive breeders. At present there are three varieties of the bred, The Red, Speckled and Light

competing for the favor of the American Breeders. To date the Speckled and Red seem to have decidedly the best of it and if anything the Speckled has a little the largest following at present but the Reds are crowding them hard. Don't believe that you would make a mistake by taking them up.

ERROR IN PRICE OF EGGS

Attention is called to an error that appeared in the advertising of Houck and Alt, Buffalo, N. Y., in the March issue of A. P. W. The price of eggs from their select pens of S. C. Rhode Island Reds headed by their Palace Panama-Pacific cockerels should have been \$15 per setting instead of \$10 per setting. The two select pens of Rose Combs are \$10 per setting. These breeders report a brisk demand for hatching eggs from the above matings and request that the correction in price be made to avoid confusion and delay in explaining the error in price to customers. Of course they have many other matings and can supply eggs from five dollars up but on account of the quality of the above pens and the limited number of eggs they will be able to spare from them they wish to have the matter set straight.

No Odors

Kill Rats & Mice by Science

with Pasteur Laboratories Rat Virus

NOT A POISON

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NEW YORK CHICAGO

EASY TO USE

HARMLESS TO POULTRY DOMESTIC ANIMALS AND MAN

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Minorcas of Every Comb and Color

A Book For The Minorca Breeder

Written by Geo. H. Northrup, conceded to be the greatest living authority on this breed. This well written, well illustrated book will prove valuable and instructive to all lovers of Minorcas.

It gives full information on all breeding, mating and feeding problems including the care and management of chicks, and preparation of birds for exhibition.

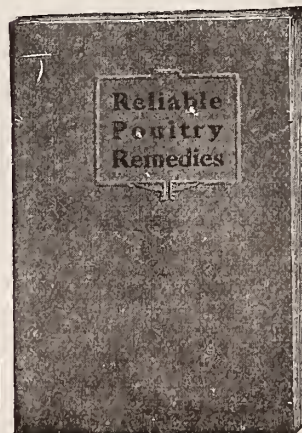
The origin and history of all varieties of Minorcas including S. C. Black, R. C. Black, S. C. White, R. C. White, Buff, Mottled and Barred Minorcas are fully discussed. If you are breeding Minorcas you need a copy of this book. We send it post paid for 50 cents. Address all orders

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How to PREVENT and CURE DISEASE

A Poultryman's Hand Book of Tried and Proved Remedies for the Diseases of Poultry. It describes in simple language the symptoms of the various diseases and tells what remedies will give best results under different conditions.

The Chapters are: Requisites for Health; Head, Throat and Lungs; Intestines and Crop; The Abdomen; Legs and Feet; The Skin; Parasites; Objectionable Habits. Send for complete list of our publications.

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60 Cents, including a Year's Subscription to American Poultry World.
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American Poultry Publishing Co.

158 Pearl Street, Buffalo, N. Y.

DISEASES OF CHICKS

By A. G. Philips

(Continued from page 452)

cus, or opening where the yolk is taken in, is not healed, and the droppings will collect on it.

It can be easily seen from the above that it is a big problem to combat and diagnose Bacillary White Diarrhoea, and that other diarrheas should not be confused with it. If this disease breaks out and it is desirable to retain the flock, trap nests should be installed in the hen houses and pedigree trays used in the incubators in order to find out which hens are producing the disease. If this can be found out, the trouble can be immediately stopped. Along with this, strict sanitation should be observed.

Aspergillosis

A full description of this disease will be found in a bulletin compiled at the Maine Experiment Station, Orono, Maine.

This disease causes similar external appearance in chicks as does Bacillary White Diarrhea, and only upon internal examination can a distinction be made. A postmortem examination shows yellowish tubercles in the lungs and sometimes in the organs of digestion. In acute cases, the disease may cause only an inflammation of the lungs, preliminary to the formation of tubercles. This disease is a fungus disease, and the spores may be found by microscopic examination of the tubercles.

Chicks contract this disease sometimes along with Bacillary White Diarrhea, and mostly obtain the spores of this Aspergillosis from the food or litter. Incubators, brooders, and even the digestive tract of hens have been known to contain this fungus.

It is useless to try and treat diseased chicks, and prevention is the only effective treatment known. Thorough disinfection is the best treatment. People's ideas differ in their definition of thorough disinfection, but it is not going too far to dip litter in a disinfectant before using, if the above disease is known to be present.

Gapes

Gapes in chicks is very well known among poultry raisers. The worm or worms by attaching themselves to the trachea or wind pipe, cause the chicken to choke or have labored breathing. These gape worms come from the soil and they only need warmth and dampness to start the eggs into development. The problem of eradication is therefore a sanitation problem involving the soil.

In getting rid of these worms it seldom pays to try the old fashioned ways, such as using a horse hair or stripped feather. This is too laborious, though sometimes successful. If chicks are affected and cough up the worms or void them with the droppings, strict sanitary measures must be taken to prevent infection of others. If a chick eats some gape worms the chances for some of them working through into the trachea are very great.

Some flocks can be passed over the gape season, which is in the early spring, without being infected, by keeping them on board floors. A still better way is to move the chicks onto new and clean land,

and let them stay there for one or more seasons. The old and infected land should then be thoroughly disinfected by scattering an abundance of air slack-lime, plowing under, and planting to crops. Some coal tar disinfectants can be used just as satisfactorily.

The whole chick disease problem falls back to that oft repeated word, sanitation. This means prevention. Cures that are sold on various markets are mainly intestinal antiseptics and purgatives. The same results can be obtained by the use of Epsom salts, fed in a wet mash. With a full knowledge of the different diseases much trouble can be eliminated.

Note.—This is a reprint of leaflet No. 26 revised edition Purdue University, Department of Agricultural Extension.

SMITH STRAIN WHITE LEGHORNS

One of the most interesting and business like catalogues and mating lists that has reached our desk this season is the one issued

by Eugene Smith, 315 Galena Blvd., Aurora, Ill., specialty breeder of S. C. White Leghorns. In addition to its attractive make up it is uncommonly well printed and illustrated. Mr. Smith has prefaced this catalogue with a brief history of his poultry career which he began twenty-five years ago and since that time he has endeavored by consistent breeding to develop a strain of S. C. White Leghorns that would not only prove valuable producers but also be able to hold their own in competition with the best produced by other breeders. In this respect we are pleased to state that he has been successful. His success along this line is proven by the comment of the poultry press and testimonials from customers several pages of which are included in the catalogue. His matings for the season of 1916, consist of eight exhibition matings and five special utility matings with prices ranging from \$3 to \$15 for setting of 15 eggs. He also gives the prices of stock and describes just what kind of a bird a customer can expect for a certain price. Baby chicks are also supplied from all matings the prices being in accordance with the quality of the mating selected. White Leghorn fanciers should secure a copy of this catalogue. It is sent free to all readers who mention A. P. W. and address as above.



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MADISON SQUARE GARDEN, NEW YORK, JANUARY 1916
OWNED AND BRED BY E. B. THOMPSON, AMENIA, N. Y.

The record of E. B. Thompson, Amenia, N. Y., in the Barred Plymouth Rock alley at Madison Square Garden has never been equalled by any other breeder of this variety. Year after year the "Ringlets" have captured a majority of the prizes—on some occasions winning all firsts—and at other times nearly every regular prize offered. In fact at the recent Garden Show, the "Ringlets" won every prize offered on cocks, cockerels, pullets, exhibition pens and three of the five prizes on hens. The pullet illustrated above headed Mr. Thompson's winning pullets and she certainly was a specimen worthy of the highest honors in America's premier show. Mr. Thompson issues a beautiful and attractive catalogue telling all about the champion "Ringlets" that will be sent free to all who mention A. P. W. when writing.

BREEDERS' SPECIAL DISPLAY CARDS

Advertisements of uniform size inserted under this heading at \$2.50 per month in advance; six months for \$13.50 or \$2.00 per month by the year payable quarterly in advance.

Palmer's White Rocks

ARE BRED FOR
UTILITY AND QUALITY
BABY CHICKS

The Glen Poultry Farm, R.F.D., Fairport, N. Y.

95 DARK CORNISH

State Club Meet, Springfield, 1916. We won 1st cock, 1st cockerel, 1-2-3 hen, Special Best Hen Entire Show. Eggs \$5.00 per 15. 37

EDWIN W. STEPHENSON, OXFORD, OHIO

Experiment Station Stock Trap Nested-Pedigreed

A limited number of hatching eggs and baby chix from W. Rocks, B. Rocks, W. Orpingtons, S. C. R. I. Reds, S. C. W. Leghorns and Buttercups at prices based on actual cost of production. Order early. Mating lists and prices.

Fallbrook Poultry Farm, Box 253, Little Valley, N. Y.

S. C. WHITE LEGHORNS

A Utility Flock of Quality

Won first hen Grand Central Palace, New York City, 1915. Stock and Hatching Eggs at reasonable prices. 16

Locust Grove Farm Eatontown, N. J.

White Wyandottes

Regals win! Hatching eggs from show stock, farm bred on free range. Dorcas line direct from Martin. Setting \$1.50. 46

Mt. Rydal Farm, Amherst, Va.

HARRY TAYLOR STRAIN "Jimcrack" Houdans (None Better Bred)

I have a few fine cockerels for sale fit to show in any company. Big, vigorous birds, carrying all the great qualities of this famous strain. Sons of prize winners last 5 yrs. Toronto, Ontario, Guelph, Boston. Eggs in season.

M. Knight, Owner and Breeder, Cresskill, N. J.

HATCHING EGGS

from hen hatched and raised stock of high egg production, S. C. White Leghorns \$2 for 15. Special mated pen \$10 for 15. White Wyandottes \$2 for 15. Special mated pen \$5 for 15. Mating list free. Write your wants. 56

Hubert Elting, Ulster Co., Highland, N. Y.

"BUNGALOW" S. C. WHITE ORPINGTONS

Hatching eggs from four pens, winning best bird and all specials on females, Worcester, 1915-16. 46

GEORGE A. GUY
63 Granite St., Worcester, Mass.

SCHUNEMAN'S BLUE RIBBON Light Brahmas, Buff Orpingtons, White Wyandottes, Barred Rocks and Mammoth Pekin Ducks

are of highest quality. Stock and Eggs for sale. Correspondence solicited.

G. Schuneman, R. F. D. 2, Box 98, So. Huntington, L. I.

S. C. RHODE ISLAND REDS Extra Heavy Laying Strain

Eggs for hatching and day old chicks. Prices very reasonable

PLEASANT VALLEY POULTRY FARM,
R. HADLEY, Prop. Ellicottville N. Y. 36

Special Display Cards

**\$2.50 per Month in advance; Six Months
\$13 50 payable quarterly in advance
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Now is the time to advertise your surplus stock. Feed prices are high and the quicker you turn them into money the larger your profits.

A Breeders Special Display Card is the medium that will quickly put you in the touch with the buyer, and do so at small cost.

Just note the above prices and see if you can afford to pass the opportunity by and continue to throw away hard earned dollars in high priced feed.

Don't let that feed bill grow until your profits are all consumed. Use a Special Display Card for a few months and let it dispose of that surplus stock.

Better send your copy and order today.

"E. F. Schweikert's" Barred Rocks

Winners of 14 silver cups. Winning 6 firsts, 1 second, 1 fifth, also two silver cups at the Ohio State Poultry Show, Dayton, Ohio, December, 1915. Prizes won at poultry shows 33 firsts, 21 seconds, 19 thirds, 11 fourths, 9 fifths. Eggs from this high class exhibition stock \$5.00 per setting. 76

E. F. SCHWEIKERT, SPRINGFIELD, OHIO

S. C. White Leghorns

Stock and eggs in season. Eggs \$2.00 per 15 from prize winners. Fine pen of Black Leghorns \$10.00 White Leghorn cockerels \$2.00 46

JESSE LOVE, CUTLER, OHIO

BARRED ROCKS

Winners at the Great Panama-Pacific International Exposition. Pullet won championship ribbon at Springfield, Ohio, for best pullet in entire show.

Guaranteed eggs from these prize winners \$5.00 per setting. 17

G. H. Mayne, Springfield, Ohio.

Get my mating list of Dune Alpin Strain S. C. W. Leghorns and S. P. P. Rocks, yards headed by 1st. Madison Square Garden cock, 1st. Palace cock and cockerel 1st. and 2nd. Brooklyn cocks, and others as good Eggs and stock for sale. 36

Wm. M. Jones East Hampton, N. J.

ROSE COMB REDS

RED TO THE SKIN

I have a few good, strong cockerels for sale from \$5.00 up. Write me your wants.

GEORGE H. BROWN,
Box 67, Dover Plains, N. Y.

Blue Blooded White Leghorns and Barred Plymouth Rocks of Quality

A few of our select stock of cockerels, pullets and breeders for sale. Write for particulars. Eggs in season.

Rutter Poultry Place, Patchogue, L. I.

BLUE PLYMOUTH ROCKS

The fowl for everybody, regular egg machines, winners Panama-Pacific Exposition, Madison Square Garden, Chicago, Indianapolis. Mating list free. If you want a money maker try Blue Plymouth Rocks. 56

FISHEL & HASSELMAN, Route 16, HOPE, IND.

THE J. S. J. AUTOMATIC AND TRAP NETS

Won First Prize and Gold Medal at Panama-Pacific Exposition

Separate layers from non-layers automatically without attention. Write for booklet and prices.

JORDON & CHAPMAN MFG. CO., INC.
221-225 No. Central Ave., 126 Staunton, Va.

JOHN E. STOLL Breeder of White Plymouth Rocks and White Wyandottes

1913 White Rock winners 1 cock, 1 hen, 1-2 pullet, 2 pen. 1915 winnings white Wyandottes. Forest City Fair, 1 cock, 1 hen, 1 cockerel, 2-3 pullet 1 pen. 76

3311 E. 105 St., Cleveland, Ohio

FOR SALE OR EXCHANGE

1 Essex's Model Incubator, 400 egg size, hot air, Humphrey Greenbone Cutter, 2 International Hoovers, Corn Cracker and Grit Mill, all in first class condition, will exchange for any kind of fancy chickens or fancy pigeons. Address

James Holtzinger, Walnut St., Wrightsville, Pa.

S. C. Rhode Island Reds

Tompkins and Scranton Strains

Our 1914-1915 matings proved more than we expected. Eggs \$1.50 per 15, \$6.00 per 100, \$25.00 per 500. We will give satisfaction.

J. S. BERGH, JACKSON CORNERS, N. Y.

MAGENTA POULTRY FARM

Established 1898

Eggs by settings or hundreds. My 1916 matings contain winners from Madison Square Garden, New Haven, Conn., and Springfield, Mass., shows. Fine single comb breeding males \$10 each. Will send them on your approval. Free circular. S. C. and Rose Comb Rhode Island Reds F. E. Woodard, East Longmeadow, Mass.

HUTCHINSON WHITE ORPINGTONS SHOW STOCK FOR SALE. EGGS FOR HATCHING

Winners. Augusta, Memphis, Columbus, Orlando, Tampa and many others.

We do not only win in own class but sweepstakes with all classes competing. 1915-1916 catalogue on request.

Hutchinson Farm Box 595 W¹ Valdosta, Ga

DARK CORNISH

Young's Dark Cornish will start you right. Winners at Greater Buffalo Show, November 1914, 2-3 hens, 2 cockerel. November 1915, 2 cockerel, 1 pen young. A limited number of eggs from select matings at \$5 per 15.

M. M. YOUNG, EAST AURORA, N. Y.

BREEDERS' SPECIAL DISPLAY CARDS

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ANCONAS

Two pens, one pullet and cock mating. One hen and cockerel mating. All dark birds, males were 1st winners and most of females were winners at Bangor show. All eggs for sale from these pens after March 10th. ³⁶

W. H. NORTHUP, BANGOR, ME.

PIGEONS

A few of my select stock of large Homers and Runts for sale. Matings guaranteed. Correspondence solicited. ³⁶

W. M. WELLMAN

5 Lawrence St., New Haven, Conn.

Eggs, Chicks from Quality Bred-to-lay S. C. W. Leghorns

Eggs \$5.00-100. Chicks \$12.00. Safe arrival guaranteed. No order too large. From grand exhibition matings every pen headed by first prize winners. Eggs \$3.00-15. Latest winnings on request. ⁴⁶

Grassel Poultry Farm, Route 22, East Akron, Ohio

"ALERT" ANCONAS

Bred and perfected at Tip Top Poultry Plant. Have won the Blue wherever shown. Excellent winter layers. Twice entered in North American Laying Contest, four of the ten went above 200 eggs each with two others just below. Eggs for hatching. Day-old chicks and yearling hens for sale. ⁵⁶

H. M. BLAKE, Prop., HONESDALE, PA.

You

cannot afford to buy a Single Comb White Leghorn Chick or Hatching Eggs before you get our circular. Over 211 eggs a year flock average. Send your name on a card today. ³⁶

CHATAUQUA POULTRY-FRUIT FARM

D. Paschke, Specialty Breeder, Fredonia, N. Y.

BUFF LEGHORNS AND WATER FOWL QUALITY ONLY WRITE ME

L.B. McDONALD FARM R.D. 6 SPRINGFIELD, O.

LEGHORNS AND REDS

White Leghorn pen headed by son of 254 egg hen.

Rose Comb Red pen headed by Kaufmann & Windheim cockerel. Eggs \$1.50 for 15.

FRANK C. COX, ³⁶ NUTLEY, N. J.

BARRED PLYMOUTH ROCKS

I won at the Great Rochester Show, 1916, 6th Barred Rocks, 2 firsts, 4 seconds and 5 specials. Pullet bred cockerels, brothers to my champion Rochester pullet \$3.00 and \$5.00. Pullets \$2.00 and \$3.00. Your money back if not satisfied. Eggs \$1.00, \$2.00 and \$3.00 per 15. Schwab's "Nonpareil" Strain. ³⁶

FARLEY PORTER, Box A, SODUS, N. Y.

WHITE WYANDOTTES-S. C. BLACK MINORCAS

Won 1st display on Wyandottes at Springfield Show. Large class competing. Won every 1st at Springfield and every first but one at Tiffin on Black Minorcas in class of 47 birds. Eggs for hatching in season. ³⁶

GEO. L. KIMES, FOSTORIA, OHIO

S. C. WHITE ORPINGTONS

Eggs for hatching from extra fine birds of English extraction. \$2.00 per 15; \$5.00 per 45; \$10.00 per 100. ³⁶

BROOKWOOD FARM,

W. T. Morgan, Prop., Mooresville, Ind.

BABY CHICKS

Young's Strain S. C. W. Leghorns Chicks from carefully mated, heavy laying, free range stock. Book your orders now \$12 per 100. Deposit of 25 per cent with all orders.

CLEARVIEW FARM

W. H. Alders, R. 6, Ithaca, N. Y. ³⁶

WHITE CREEK HATCHERY

M. B. Gould, Manager WEST RUPERT, VERMONT

Day-Old Chicks a Specialty
Rose Comb R. I. Reds Single Comb White Leghorns, White Wyandottes, Single Comb Mottled Anconas. Custom Hatching. Stock and Eggs in season. Prices reasonable. Correspond and get acquainted. ⁵⁶

Send Us Your Order Today

AND LET A SPECIAL DISPLAY CARD

Sell Your Surplus Stock

THEY GET THE BUSINESS

BIGELOW WHITE ROCKS

Big winners at Cleveland, 1916, Show, also silver cup for best type bird at Wadsworth Show, eggs from choice matings \$3.00 per 15, eggs from choice utility stock \$6.00. ³⁶

P. C. BIGELOW

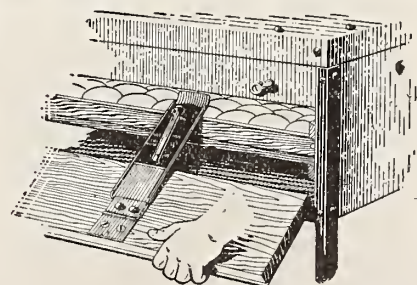
Box B, Medina, Ohio

OLD HOMESTEAD POULTRY FARM, ALDEN, N. Y.

Anconas—Sheppard's strain. Barron's White Leghorns. Eggs \$5.00 per 15. White Wyandottes. Buffalo winners and winter layers. R. C. Reds, 250 egg strain. Eggs \$3.00 per 15. Cook's Buff, Kellerstrass White, Foxhurst's Black Orpington Eggs \$3.00 and \$5.00. ⁵⁶

JOHNSONS ANNOUNCE THEIR NEW 1917 OLD TRUSTY

A new thermometer holder attached right to the door of the incubator and a large oil tank, enough for the entire hatch, are two



Thermometer Holder on Inside of the door—New Convenience on 1917 Old Trusty Incubators.

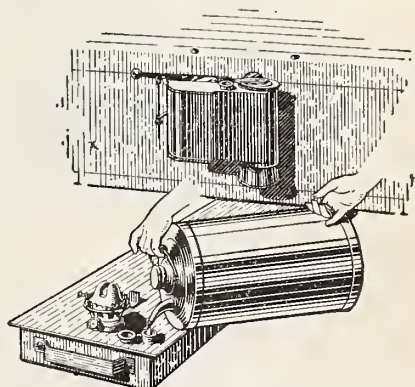
of the new improvements on the new 1917 model Old Trusty incubator made by the M. M. Johnson Company in Clay Center Nebraska.

This may seem somewhat early in the season for the Johnsons to announce a new model, but the 1916 stock was all used up. So the best idea seemed to be to start building the 1917 models and fill present orders with them.

Both of the features mentioned above and illustrated here seem to be very valuable indeed. The thermometer holder, particularly, is very handy. This brings the thermometer into view the minute you open the door, and it puts the thermometer back in place automatically as you close the door. The thermometer is fastened with a metal holder, operated on a hinge, screwed right on to the inside of the incubator door. The little frame lays right over the eggs and gives you the actual temperature around the eggs.

This not only makes for convenience, but it insures your always having the thermometer right in the place where it should be. There is no chance for someone to take it out of the machine and carelessly misplace.

The large oil tank, holding enough oil to carry through for the entire hatch, saves quite a lot of work. No need to get up and watch the fuel supply during the night, nor to worry about having enough to last through should you leave home for a day or two.



Large Oil Tank—Slides Under the Incubator Case—Holds Enough Oil for Entire Hatch.

These new features are about the first improvements that have been added to Old Trusty incubators for some time.

The Johnsons state it has seemed impossible to make Old Trusty incubator do better hatching. They were already right up to the high water mark in holding records for biggest average hatches year in and year out. But they were able to add new features for convenience in operating the machine.

Old Trustys, as you probably know, are now used by hundreds of thousands of users. Their total number is somewhere around 700,000. This is a remarkable showing when you consider the very humble start in which the first Johnson made machines were built. They were built by hand in the boiler room of the local grist mill in Clay Center. Built in spare time between firing up the boiler.

The Johnsons' business growth, although it might be quite wonderful, has never been of the sensational sort. They have never made sensational claims. They do not make a practice of jumping in with a new bunch of ideas each season; nor have they made it a practice to cut prices in an effort to sell off old stock. Rather their plan has been to sell out each season's output and cleave up for a new start each year. Therefore you can realize that improvements such as the above were very carefully studied and tried out before they were offered.

You cannot be too careful in picking the right incubator to take care of your valuable hatches. If there are profits to be made raising poultry, and everyone says there are, then the machine you choose will have a great deal to do with the amount of profits you make. We have recommended Old Trusty incubators in the past. They were good machines. They brought success and profits to hundreds of thousands of users. These new improvements make Old Trustys still better, and put them just that much further ahead in their field.

*** Ten cents sent at our risk will bring A. P. W. on trial for four months.

*** Patronize A. P. W. advertisers they are reliable Look up our guarantee on the first page. It protects you.

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AMERICAN POULTRY WORLD is furnished every classified advertiser without charge during the time his advertisement appears in these columns.

We guarantee to publish an average monthly circulation of 45,000 copies during the year ending with April, 1916

"BECOME IDENTIFIED WITH A WINNER."

ANCONAS

SINGLE COMB ANCONAS. Heavy layers. Hatching eggs, 15-125. Progressive Poultry Farm, Interlaken, New York. 4-5-6

SINGLE COMB ANCONAS EXCLUSIVELY. Fine large dark, correctly mottled birds. Comb and type right, grand egg producers. Cocks, hens, pullets and cockerels for sale at very reasonable prices, considering quality of stock. Eggs for hatching at \$1.50 per 15. \$7.00 per 110. Geo. C. Schwegman, Richmond, Indiana. 4-5-6

ANCONAS. Mated to Sheppard cockerel. Eggs, \$1.50 per 15. F. Booth, West Alexander, Pa. 3-4-6

S. C. ANCONA EGGS. Write for mating list. J. B. Horner, R. D. 8, Washington, Pa. 3-5-6

ANDALUSIANS

BLUE ANDALUSIAN EGGS, from a good laying strain. Pens beaded by prize winning males. Prices reasonable. Harry Cotting, Rhinebeck, N. Y. 3-4-6

BLUE ANDALUSIANS. Stock and eggs for sale. Calvin L. Berry, Sugar Loaf, N. Y. 3-6-6

McKIBBINS CHALLENGE CUP WINNERS. S. C. Blue Andalusians. Noted winners at Buffalo, Cleveland, Boston, Madison Square, New York State Fair, San Francisco, Philadelphia, Detroit, Forset City. Winners, 1915. 42 ribbons and challenge cup. Order your eggs early. John McKibbin, Willoughby, Ohio. 3-6-6

BABY CHICKS

BABY CHICKS AND HATCHING EGGS. Single Comb Rhode Island Reds, also White and Brown Leghorns. Bred from a strong, vigorous heavy laying strain of free range stock. Circular. Adrian DeNeef, Sodus, N. Y. 4-5-6

S. C. WHITE LEGHORN CHICKS. \$10 per 100. Eggs, \$6 per 100, \$50 per 1,000. If you want really good chicks or fertile eggs from high grade utility stock order now. Satisfaction guaranteed. C. A. Schwebel, Leaman Place, Pa. 4-5-6

BABY CHICKS. Candee hatched S. C. W. Leghorns from large healthy females mated with males of trap nest stock. Booking orders now. \$12 per 100. Venture Farms, Middletown, N. Y. Route 1 3-4-6

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BABY CHICKS, 8 CENTS AND UP. Expressage paid. 10 varieties. Sale sheet free. Satisfaction guaranteed. South Kenton Poultry Farm, Kenton, Ohio. 3-5-6

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BABY CHICKS from trapnested stock with records from 160 to 245 eggs per year. 20 cents each. \$15 per 100. Wendell Smith, Belle Vernon, Pa. 3-5-6

BABY CHICKS. Single Comb White Leghorns. choice stock of the best laying strains, satisfaction and safe delivery guaranteed. \$10 per 100, \$90 per 1,000. Harry F. Palmer, Middleport, N. Y. 3-5-6

CHICKS, 8 CENTS, SINGLE COMB WHITE LEGHORNS. Barred Rocks, R. I. Reds. Heavy laying strains. W. W. Merrill, So. Dayton, N. Y. 1-4-6

VITALITY BABY CHICKS from bred. to lay yearling hens. White Leghorns, Barred Rocks and Rhode Island Reds, 8 to 12 cents each. Our Leghorn pullets averaged 165 eggs per year. Catalogue. J. Craig Nichols, Box F, Chili Station, N. Y. 4-6-6

BABY CHICKS, April, 15 cents; May, 12½ cents, from heavy winter laying strain trapnested Single Comb White Leghorns. Root's Roost, Rock City Falls, N. Y. 1-4-6

BABY CHICKS. S. C. White Leghorns, choice stock of the best laying strains, satisfaction and safe delivery guaranteed. \$10 per 100, \$90 per 1,000. Harry F. Palmer, Middleport, N. Y. 2-5-6

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ALL BREEDERS of Bantams should procure a copy of the "Bantam Book". Fully describes all varieties and tells how to feed and care for them. Just what the beginner wants to know. Send .50c. today to AMERICAN POULTRY PUBLISHING CO., Buffalo, N. Y. 1-4-6

SEABRIGHT, SILKIE, Light Brahma, Rose Comb Black, Black Tailed Japanese, Black Red Game, Buff, Black and White Cochins Bantams. Proper & Son, Schoharie, N. Y. 6-4-6

JAPANESE, SEBRIGHTS, Cochins, Games, Brahmans, Rose Combs, Polish, Circular 2c. stamp. Penn Bantam Yards, Desk 44, Delevan, Wisc. 6-6-6

Edmund J. Hickey breeder of (blue ribbon) **LIGHT BRAHMA BANTAMS.** High winners in all shows. Washington, Hagerstown, Allentown, Panama-Pacific Exposition, Buffalo, Baltimore Philadelphia, Altoona. Eggs and stock. Box 1918, Washington, D. C. 4-5-6

R. C. BLACK BANTAM EGGS. Circular free. Show winners. Jay Beswick, Berea, Ohio. 3-4-6

BELGIAN BEARDED BANTAMS (Barbus de Auvers-cleau legged) Blues and blacks. Birds and eggs for sale from winners 1st and special prizes Crystal Palace, Brussels, etc. A few first class trios at \$75.00. Eggs, \$3.50 per dozen. Correspondence invited. R. Terrot, Honorary Secretary the Belgian Bearded Bantam Club, British branch; Wislington House, Cookham, England. 3-5-6

WANTED—BUFF COCHIN PULLETS. William Young, Middletown, Conn. 1-4-6

COCHIN, BRAHMA BANTAMS. Special values. Stock and eggs. Catalogue. C. H. Sayer, Horseheads, N. Y. 3-6-6

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M. K. MILLER, POTTSTOWN, PA. Bantam breeder and importer. "Silver Seabrights a specialty". Satisfaction guaranteed. 1-4-6

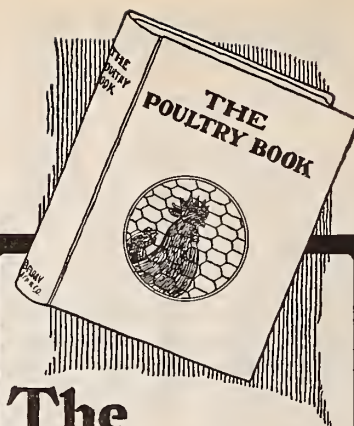
BRAHMAS

SEE RIVERDALE POULTRY FARMS advertisement, Light and Dark Brahmans, page 482. 1-4-6

SEE MY ADVERTISEMENT on page 489. Harvey C. Wood, Box 75, Bound Brook, N. J. 1-4-6

LIGHT BRAHMAS. Show stock and eggs. S. S. Newton, Ballston Spa, N. Y. 6-5-6

THOROUGHbred LIGHT BRAHMAS. Eggs for hatching. Circular free. Reams Brothers, Boonville, N. Y. 3-5-6



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An Encyclopedia on Poultry Raising

One of the most valuable treatise on poultry ever published. Contains over 1300 pages of reading matter, 75 full page illustrations and 3000 small pictures of poultry, poultry houses, etc., etc. Weighs almost four pounds. Formerly issued in three volumes and made to sell for \$13.50. Now issued in one volume in handsome cloth binding at the remarkably low price of \$1.50.

The Poultry Book

Covers every branch of poultry raising from the egg to the mature fowl. Describes over 100 varieties of poultry. It is the most complete and reliable treatise on poultry that has ever been published. In addition to describing the various varieties it discusses feeding and housing problems, mating and breeding, incubation and brooding and the thousand and one things that the poultry raiser wishes to know.

By special arrangements with the publishers we can send a copy postpaid, together with three years' subscription to A. P. W., for \$2.00.

Send a two dollar bill today and get the greatest bargain in poultry literature ever offered. Address all orders

American Poultry World

Book Department

BUFFALO, N. Y

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SUEPPEL'S DARK BRAHMAS are the champions of the world, having won 1st prize at Panama-Pacific Exposition, California, Louisiana Purchase Exposition at St. Louis and Chicago World shows. Best winter layers. Cockerels for sale. Eggs, \$5.00 per 15. John W. Sueppel, Iowa City, Iowa. 3-6-6

BUTTERCUPS

SOLE WINNERS all classes Buffalo and Palace shows. More specials than competitors combined. Only Buttercup strain having Official Laying records. Circular. Chantecleur Plant, Ulster, Penna. 3-4-6

4 HEN TWO EGG DAY RECORD. Eggs, twenty cents. Photo. Coleman D. Peck, Patterson, N. Y. 1-4-6

AMERICAN STANDARD BUTTERCUPS. Correct in comb and color. Circular free. American Buttercup Farm, Harford, Pa. 3-6-6

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ALL ABOUT CAMPINES—The new Campine book just out. 88 pages and cover. Profusely illustrated. Full page plate of Golden and Silver Campines in colors. The most complete treatise on the variety ever prepared. To breed properly you should have a copy. Price 75 cents, postpaid. Address all orders AMERICAN POULTRY WORLD, Buffalo, N. Y.

IMPROVED SILVER CAMPINES. Choice stock reasonably priced. Rev. W. Berberich, Groton, N. Y. tf

SILVER CAMPINES, Jacobus and Kennedy strains only best cockerels I am selling at two dollars. Eggs one fifty per setting of fifteen. Strictly fresh. Charles E. Henderson, Austerlitz, New York, Columbia Co. 3-4-6

CANADA'S BEST SILVER CAMPINES won at Canada's largest shows, Guelph, Ottawa, Hamilton, Peterboro, Belleville and others. Eggs at reduced prices. Write for circular and price list. W. E. Pakenham, Drawer 77, Norwood, Ontario, Canada. 3-5-6

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COCHINS ALL VARIETIES as well as Brahmans and Langshans are described in the book "The Asiatics", the only complete treatise on the oldest fowls in existence. A copy will be sent postpaid upon receipt of 50c. cash or stamps to AMERICAN POULTRY WORLD, Buffalo, N. Y. tf

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WHITE CORNISH-PRIZE WINNERS. Hatching eggs, \$1.50 per sitting, pen headed by ten pound cock, hens eight to ten pounds, large fine pullets. E. F. Snyder, Olean, N. Y. 3-4-6

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SILVER GRAY DORKINGS EXCLUSIVELY 27 years. More first prizes silver cups and specials at Boston, New York, Buffalo last 17 years than all competitors combined. Late winnings Buffalo, two gold specials, 24 birds all placed. New York, all first prizes, every bird placed. Stock for sale. Eggs best matings, \$4.00, 13. \$7.00, 26. Watson Westfall, Sayre, Pa. 3-4-6

DUCKS

A COPY OF DUCKS AND GEES should be in the hands of every breeder of water fowl. Contains the origin of the Ducks. Describes the different Standard varieties. Tells about the wonderful Duck Industry on Long Island and abroad. 104 pages, 8 1-2 x 11 1-2. Price 75 cents. AMERICAN POULTRY WORLD, Buffalo, N. Y. tf

BUFF ORPINGTON DUCKS. Eggs for hatching. Mating list. Earl W. Lowell, Sharon, Wisc., Route 2. 3-6-6

FAVEROLLES

BUFF FAVEROLLES are coming. Eggs, \$5.00 per 15. A. D. Arnold, Dillsburg, Pa. 3-4-6

HAMBURGS

QUALITY BLACK HAMBURGS. Seventy prizes in four years. Splendid layers outclassing our Reds, Leghorns, Wyandottes. Bargains in stock and eggs. Lyman and Storer, Waltham, Mass. 3-5-6

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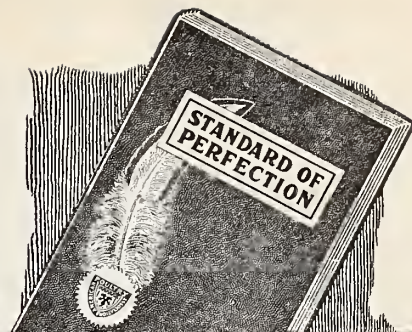
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GOVERNMENT WORK FOR POULTRY

(Continued from page 511)

fined. The birds were mated at from 5 to 7 months old, the average mating age being 5.7 months.

Wheat, corn, kafir corn, Canada peas, millet, and hemp were the grains most commonly fed, while a number of other grains including peanuts, grass seed, oats, buckwheat, sunflower seed, rice, Egyptian corn, cowpeas, and milo maize were also used. About one-half of the breeders reported the use of some kind of greenfeed, including a wide range of such material. The use of rock salt was reported by one-half of the breeders, loose table salt, one-fourth, and table salt baked into a hard lump by the rest. About 16 per cent. used some extra feed, such as millet or hemp seed, during the molting period, while several who did not use any special feed for assisting the molt supplied these grains in their regular rations. One-third used hoppers in feeding the pigeons.

About one-half supplied tobacco stems as the entire or for part of the nesting material, and hay and straw were commonly used, while others used pine needles, cut pea vines, and alfalfa stems. One-half reported freedom from all diseases and about one-fourth gave canker as a common cause of sickness.

The average profit per pair of breeders varied from 32 cents to \$3, and averaged \$1.52; the feed cost from 95 cents to \$2, with an average of \$1.32. All sold squabs for market, while about one-half sold both as breeders and for market. The average price for the year received per dozen squabs varied from \$2 to \$4.62 and averaged \$3.43.

The number of squabs marketed from each pair of pigeons varied from 10 to 20, and averaged 13.1; the weight per dozen squabs varied from 6 to 11 pounds, and averaged 9 pounds. Squabs were marketed at four weeks except from two farms where the average age of marketing was given as four and one-half weeks.

Data Secured From Small Breeders

A large number of replies were received from breeders who kept less than 300 pigeons. Their answers in general agreed with those from the large pigeon breeders, although they were more varied.

The average yearly profit from each pair of breeders varied from 20 cents to \$7.50, and averaged \$2.29. The profit from breeders who sold stock largely for breeding purposes varied from \$10 to \$20 per pair. The average yearly feed cost per pair varied from 40 cents to \$4, and averaged \$1.32. Fifty-five per cent sold squabs for market only, 33 per cent both for market and as breeders, and 12 per cent for breeders only. The number of squabs marketed from each pair of breeders varied from 5 to 22, and averaged 13.8; the weight per dozen squabs varied from 4 to 18 pounds, and averaged 10.0 pounds. Squabs were marketed at from 3 to 6 weeks; the average being 4.2 weeks. The average price for the year received per dozen squabs varied from 60 cents to \$6 and averaged \$3.01.

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GENSCH WHITE ORPINGTONS VICTORIOUS

F. M. Gensch, Omro, Wisc., who has achieved a very enviable reputation as a producer of White Orpingtons is entitled to boast over his record at the Chicago Coliseum Show this season. Among the many prizes won was first prize pen the most coveted award in the class. This pen attracted wide attention and much favorable comment from White Orpington fanciers present as did also his second prize cockerel. These birds and many other winners are described in his mating list that will be sent free to all who mention this magazine. He is particularly anxious to hear from those who are looking for quality and feels that he can please the most critical. His prices are very reasonable for both stock and hatching eggs and we are told that these Wisconsin bred birds are surprisingly vigorous and healthy.

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Every reader of this magazine should avail themselves of the opportunity to secure absolutely free and without obligation a copy of the Poultry Book sent out by the Ralston-Purina Co., 817 Graiot St., St. Louis, Mo. Some of the chapters in this book include the following: Baby chicks, breeding and feeding charts, Diseases and cures, Trap-nests and fixtures and many other valuable suggestions for the poultry raiser. Purina Chick Feed and Purina Chicken Chowder are also mentioned and when fed as directed they absolutely guarantee double development or your money back. Purina Poultry Feeds are the kind that are sold in the checkerboard sacks, there is no mistaking them. If your dealer cannot supply you write direct to the Mills, addressing as above

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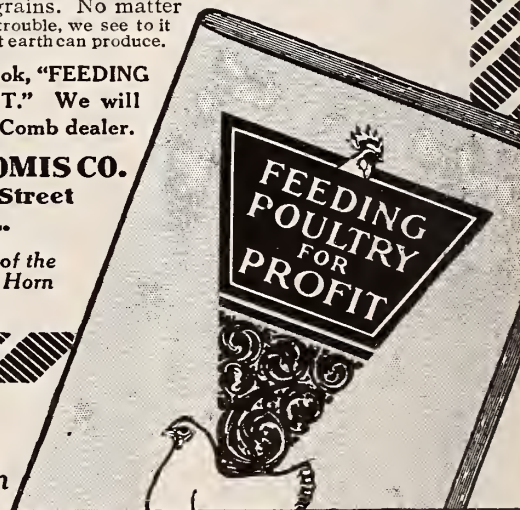
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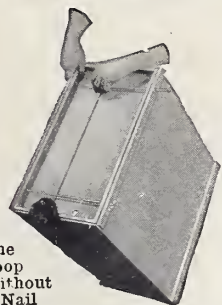
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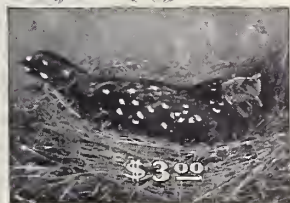
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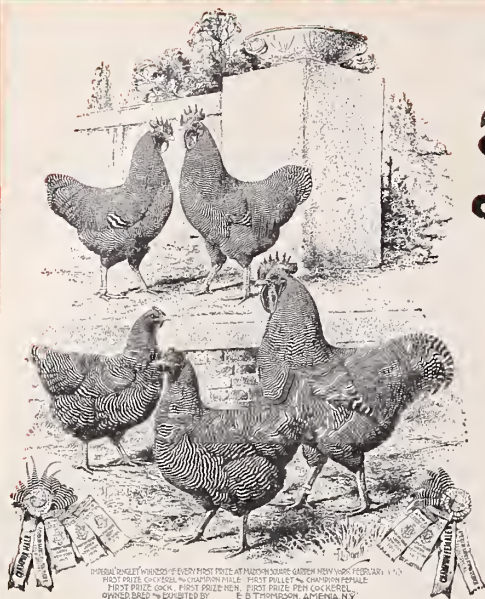
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